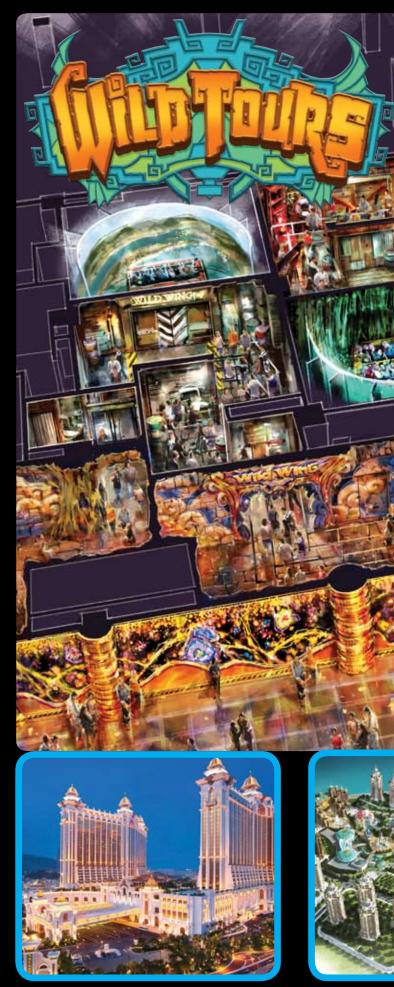


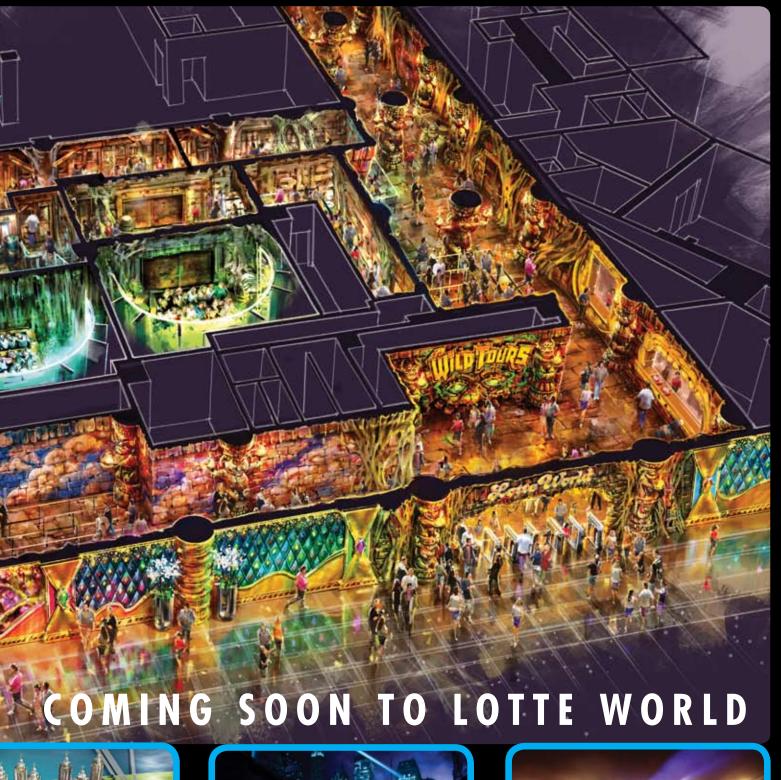
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8	Chimelong Ocean Kingdom, game changer An InPark roundtable • edited by Judith Rubin
12	From Shanghai to Yeosu to Milan How creative teamwork and private funding saved the US Pavilion • by James Ogul
18	VR: It's back for good Themed entertainment's "golden age" is just warming up • by Brent Young
22	The immersive ingenuity of Attraktion! Markus Beyr's companies redefine international entrepreneurship and themed entertainment genres • by Judith Rubin
29	Bumping up the bumper car New advances in bumper car tech appeal to operators
32	InPark's 10th anniversary section Look back at features from our first ten years of publishing
68	Intellectual property values The industry speaks out on the evolution and future of IPs • by Jan Shaw & Jim King
70	Cinematic experiences for all ages Exploring Wanda's increasing role in the evolving Chinese themed entertainment landscape • by Joe Kleiman
72	Finding the "big idea" IPM asks Gary Goddard about reurbanization, Central America and how to succeed in the industry
75	Curious about everything Meet Dennis Tanida, hospitality and themed entertainment architect

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COVER: Markus Beys stands surrounded by four of his company Attraktion!'s innovations: Cinesplash 5D, Dome Ride Theater, Playoke and WeRobots. **Full story on p 22.** Cover credit: Attraktion!

advertisers

Alcorn McBride	7
Alterface Projects	74
Attraktion!	17
ВаАМ	37
BRC	32
The Business Creative	4
Color Reflections	59
Cost of Wisconsin	38
ECA2	77
Entertainment Design Corporation	32
Electrosonic	49
ETI	62
FUNA	52
Gary Goddard Entertainment	2-3
Gateway Ticketing	55
IAAPA	32
Iconpath	60
JRA	32
Ken Saba	32
Morrow Sound	64
Nolan Heimann	64
Ontario Ministry of Tourism	19
PicSolve	32
Polin	28
Ray Hole Architects	38
RDC	15
Rhetroactive	30
Rick Rothschild	32
Sally	32
Super 78	27
TEA	32
Technifex	43
Thorburn Associates	13, 31, 63, 6
TPG	40, back
Utopia	32
Visual Terrain	64
VOA Associates	36
WhiteWater West	21,76
WyldBlue Entertainment	20
Zebec	44

Thank you for ten years

Martin Palicki. IPM editor



hen people ask me what it was like starting ${\sf V}$ the magazine I frequently tell them that my original business plan was woefully inadequate in predicting how the publication would evolve. As many entrepreneurs in this industry are well aware, the landscape changes constantly, and the more flexible and nimble an organization is, the more likely it is to survive.

I'd like to take full credit for navigating the waters, but I can't. Great partners like Bill St. Yves, Mitch & Kim Rily, Brian Szaks, Eric Sandigo, Ed Wills, Mattheis Carley, Joe Kleiman, Paul Williams and countless others have helped chart the course when needed and unloaded and distributed thousands upon thousands of magazines. The very first issues were mailed by hand. I rounded up a group of friends and supplied beer and pizza while we all slapped on labels and sealed envelopes.

But I truly believe InPark would not be so successful if it weren't for the assistance of Judith Rubin. She has helped carve out InPark's niche and edited more articles than you could possibly imagine.

This issue is a celebration for everyone - those on the back end as well as our supporters, advertisers and readers. You have all helped to bring InPark to the ten year mark! Thank you, and I look forward to serving you for another ten years and beyond. • • •



Reflections on a decade

Judith Rubin. IPM co-editor

uiding Light, the now-canceled daytime TV series, was the subject of my first contribution to InPark Magazine, in 2005. I lived for a few years in Richmond, Virginia. I'd gotten into the habit of following the show, and several stars of Guiding Light were making an appearance at Paramount's Kings Dominion. Marty liked the light-hearted report I turned in. Our professional alliance – and our friendship - grew from there.

Marty leans toward hard rides and waterparks; I specialize more in technologies and media. When we met, he was fairly new to the industry. He had business education, writing talent and graphic design skills. (But if you know Marty, you know that his real genius is for friendship - creating and maintaining relationships.) For my part, I was 20 years older with connections, publishing experience and knowledge of the trade shows. We continue to learn from each other.

Together we were able to expand InPark's coverage to overlapping markets such as museums and world expos, and to explore many layers, trends and issues within the industry while showcasing its people, companies and projects. InPark today has a strong dual presence - online and in print. I love being part of this team. InPark is like no other trade magazine and you, our business community, have recognized and validated it with your outpouring of support over the years. • • •

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InPark News Editor Joe Kleiman (joekleiman@gmail.com) corresponds for IPM online and in print, specializing in design and technology for attractions, museums and giant screen cinema. He lives in Sacramento with his dog, Bucky.

InPark Magazine (ISSN 1553-1767) is published five times a year by Martin Chronicles Publishing. LLC. 2349 E Ohio Ave. Milwaukee, WI 53207. Shipping address: 2349 E Ohio Ave. Milwaukee, WI 53207. Phone: 262-412-7107. Printing by Short Run Printing

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Postmaster: Send address changes to InPark Magazine 2349 E Ohio Ave. Milwaukee, WI 53207. Subscriptions are available annually for \$40 per year (\$55 international).

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FUNA International



Scott Arnold VP Design & Engineering, FUNA International



Jon Binkowski Renaissance Entertainment



Lisa Smith Renaissance Entertainment



Chimelong Ocean Kingdom, game-changer

An InPark Roundtable Discussion with The Producers Group,
Renaissance Entertainment
and FUNA International

edited by Judith Rubin

himelong Ocean Kingdom grand-opened in March 2014 on Hengqin Island in Zhuhai, China. The 125-acre park features seven unique areas, each themed around a different part of the world's waterways. It is the most recent venture of Guangdong Chimelong Group Co. Ltd, founded in 1989, and the operator of numerous world-class tourist complexes, including theme parks and hospitality developments. Chimelong's stated goal is to become the top tourist organization in the world. The company is headed by Mr. Su Zhigang, Chairman.

The park was awarded five Guinness World Records: World's Largest Aquarium, World's Largest Aquarium Tank, World's Largest Underwater Viewing Dome, World's Largest Aquarium Window and World's Largest Acrylic Panel. The park is also in line for accolades within the attractions industry: There, Chimelong Ocean Kingdom is widely regarded as a gamechanger, in terms of product quality, originality and as a proving ground for east-west collaboration. InPark spoke to three companies about how they view the project and its effect on their way of doing business.

The Producers Group and Renaissance Entertainment

Renaissance Entertainment provided concept design and art direction to Guangdong Chimelong Group, in creating four attractions for Chimelong Ocean Kingdom. The Producers Group was subcontracted by Renaissance for technical design, project management and special effects: on three marine mammal shows - Tropical Heat (spotlighting dolphins), Sea Lions vs Pirates, and Under the Polar Moon (spotlighting beluga whales) - and for The Chimelong Ocean Kingdom Finale Celebration (Lagoon) Show, a multimedia spectacular with a simulated volcano, fireballs, stunts, water and theatrical lighting.

FUNA International

FUNA's scope of work on Chimelong Ocean Kingdom encompassed the audio design and much of the integration of the park-wide audio including the open areas, animal exhibits, restaurants, gift shops, and most of the attractions, initial AV design of many of the major venues, the design and

integration of the parade control and audio, and the design and integration of the lagoon show audio system.

What is the significance of Chimelong Ocean Kingdom in the big picture of Asian theme park growth?

"A 'for us, by us' park"

Edward Marks

co-CEO, The Producers Group (TPG)

As a 'for us, by us' kind of park, Chimelong is unique to any market I have seen. It's in China, for China. They wanted some Western influence and the park is bilingual because of its proximity to Macau and Hong Kong, but the customer base is almost exclusively Chinese and the experience is very Chinese.

Some current estimates proclaim China has as many as 300 parks in the development pipeline; the last number I heard that sounded more realistic was 52. Even 52 may sound like a lot – but China's population is 6.5 times larger than that of the US, and the US has 6 Disney parks and 3 Universal Studios parks. When you consider that along with the continued growth of the middle class in China, the capacity to build and support much, much more - for many years to come - is a reality.

Other Western brands are also manifesting in this market: Dreamworks, Fox, Paramount... The parks and resorts that emerge from that will put an upward pressure on quality for all operators and developers. It isn't going to eradicate 'faster and cheaper' [see below] but it will ripple through the region and through the industry. The full effects may still be decades away, but they will occur in Asia faster than happened in North America.

Bob Chambers

co-CEO, TPG

Ocean Kingdom reveals the progression of Mr. Su's vision for Chimelong. The location – a major Chinese tourism hub - provides incentive to do something special. Stepping up your game to a higher quality park doesn't mean you're becoming Western: It's a Chinese park, built by the Chinese people. Going through Ocean Kingdom, there are things that feel familiar, but it's because they've applied the principles of good theme park development. It flows the way a park should flow. It's laid out the way a park should be laid

out. There is a certain amount of RMB per square meter for a park of a certain quality, and Ocean Kingdom reflects that.

"A head start"

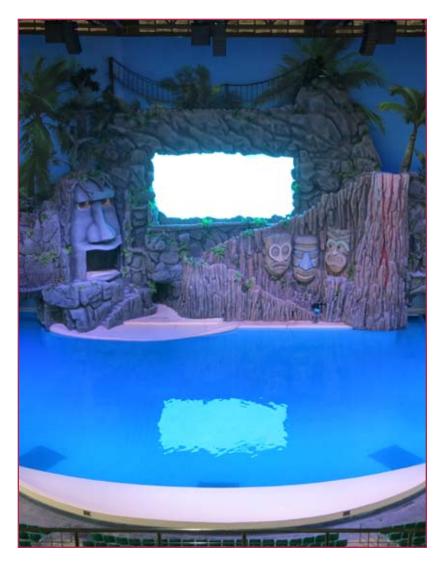
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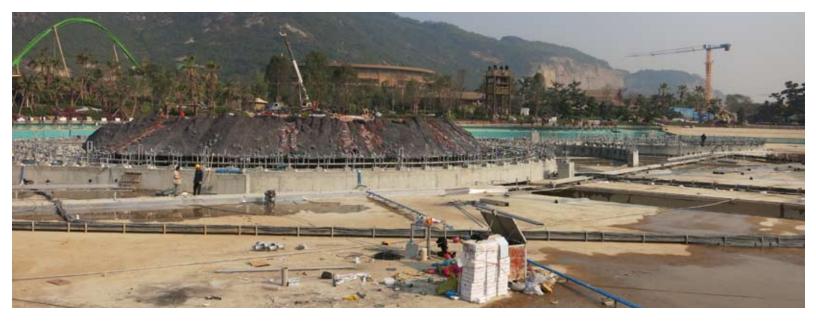
Renaissance Entertainment

We see Chimelong as being one of the leaders of a revolution in theme parks. Chimelong Ocean Kingdom builds on their already well-established and well-attended parks in Guangzhou. They have a head start – not just in terms of properties and operations, but in terms of mindset. They have consciously chosen - through the leadership of Mr. Su - to create original attractions and features. They have taken the time to look around them and create their own unique brand. That's why we like working for them. They are not going to shy away from creativity. They are not interested in duplicating entertainment from other parts of the world. In fact, Chimelong will be creating things others will want to try and duplicate.

Tropical Heat Dolphin Arena

The highly themed set for the Tropical Heat show is ready for its dolphin stars. Photo courtesy TPG





"Strategic foresight"

Brian Paiva

VP Business Development, FUNA International

The Zhuhai location was obviously a very strategic choice. There is the elevated bridge being built to connect Hong Kong, Zhuhai and Macau, the ongoing expansion of existing transportation options such as roads, trains and ferries, and a high capacity border crossing near Ocean Kingdom that was obviously built for future traffic. The entire area is growing. Macau is rapidly running out of space. The University of Macau relocated to brand new campus built in Zhuhai. Students from Macau commute via an underwater tunnel across a waterway between Macau and Mainland China. It is amazing to see all the development that has happened in and around Zhuhai. This has all been in tandem with the development of the park and will certainly continue for the foreseeable future.

How has the Asian market shaped the way your company does business?

"Going local"

Ed Marks, TPG

The need to do things faster and cheaper for the Asian market, which is now the primary market, has changed things forever for our company and for the themed entertainment industry. We've seen Western companies spend hundreds of thousands chasing business in Asia and then go away. You either learn tolerance for a process you may or may not agree with, or you don't.

Due to our involvement on two high-profile projects designed by Jeremy Railton: Crane Dance at Resorts World Sentosa, and several attractions at the Galaxy Macau, we became the guys who figured out how to do successful, large-scale projects in Asia. That is the bedrock of our company. We invested significant time and money to develop business in China: hundreds of bids, trips, and marketing initiatives. Our experience there has borne fruit and it has also changed how we process projects in Asia.

Now we are established with real Chinese contacts, projects, and local resources. It's not competitive to ship all our resources over from the West. Having learned how to compete on pricing, and how to vet local resources, we can produce product for that part of the world that we're proud to put our name on.

The only way to do it is to get on a plane, go to meetings, visit factories, visit people – to establish and maintain a physical presence in the region. That's how you get to build in China, for the Chinese, with Chinese resources, and locally review the process to ensure quality the same as if you were building in Hollywood.

Scott Arnold,

VP Design & Engineering, FUNA

Several years ago FUNA defined China as an expansion priority. The result to date has been an office in Shanghai, local staff, and local fabrication. FUNA was able to establish fabrication and assembly of equipment racks, panels, and bracketry in China to western standards - and FUNA's Ocean Kingdom work was its first, large-scale theme park project to be fully fabricated in China. Design and engineering were executed in the US, and much of the equipment came from the US and Europe, but the final assembly, including nearly 70 racks, was accomplished in China, primarily by Chinese workers trained and supervised by experienced Westerners. This

Building the Lagoon

Shown here under construciton, the Chimelong Ocean Kingdom Finale Celebration (Lagoon) Show is a multimedia spectacular with a simulated volcano, fireballs, stunts, water and theatrical lighting. Photo courtesy TPG

turned out to be both effective and efficient, and has become the model for our Chinese project execution.

"From the heart"

Lisa Smith

Renaissance

We gravitate toward projects that get us excited. And at a time when there are US-based projects available - plenty of stateside work to choose from – we have a strong desire to continue in Asia. Chimelong Ocean Kingdom was our first project in Mainland China. It was a good, healthy experience for us; we enjoyed it and we're coming back for more. We'll be jumping in with both feet over the next couple of years.

The Chimelong Ocean Kingdom Finale Celebration (Lagoon) Show we worked on is a good example of what we found inspiring. They elected to create something original and over the top. It has mind-blowing image-mapping on the surface of an enormous Whale Shark Icon, 99 domed moving lights around the lagoon's edge, more giant lighting effects from rigging around the Park, multiple lasers, elaborate fountains, fantastic flame, wondrous fireworks (that emit from a steaming volcano, behind the Icon from surrounding rooftops and even out of the Whale Shark's mouth), PWC stunt drivers with pyro, kites with pyro, water cannons, flyboarders from out of nowhere... all set to a dynamic, original score... and that's what they consider their 'interim show'!

The aquarium experience is another example. We love that they took a traditional omni-mover ride and put it through an aquarium – and that the whole thing was purpose-built: truly, integrally, seamlessly woven in and out of the aquarium. That takes vision. That's why we think they'll continue to be leaders. Paul Su, Chairman Su's son, said to me, 'A lot of companies act from a business sense; at Chimelong we still do it from the heart.' It's refreshing to be a part of that."

"Not for the timid"

Brian Paiva, FUNA

Chimelong was the first new-construction theme park project for FUNA in China and as such was very important for validating my assessment of the market potential there. We've been in China for years now and it has required a great deal of effort, resources and patience to play that long

game. As a company, if you're not planning to be there at least 10 years, then you shouldn't even start. That strategy is not for the timid.

Having patience and putting in the time and effort to develop lasting relationships is key, and we're very grateful that Chimelong gave us a chance to earn their trust.

I've been a big believer in the Chinese market for a long time. I enjoy working in China. I like the people, the culture, the food and the way the Chinese view and plan things in the context of the long term. China is and will be for the foreseeable future the largest market in the world for development and renovation of theme parks, attractions and museums •••

The Producers Group – adding bandwidth, and getting it done

TPG's client list includes SeaWorld Parks & Entertainment, Disney, Universal, 20th Century Fox, among others. The company is currently working on a new dark ride in China, and projects in Malaysia, Korea and the US.

As a Gold Level Sponsor of the IAAPA Attractions Expo in Orlando, TPG will be represented at the convention by co-CEOs Bob Chambers and Edward Marks, project manager Rob Palmer, and producer Chris Homsley.

Says Marks, "The company currently has 22 fulltime employees. Our strength is in the ability to annex and add bandwidth to other companies – augmenting their staff, tech specialists, ride developers, producers, tech documentation. Depending what the client wants, we'ghost' or do it in our own name. We have some fantastic partners now, including established design firms that had previously brought on their own freelancers, and new firms that decided to call on TPG rather than staff up. We will be announcing new, larger offices in Glendale soon – and after that, in Beijing.

In addition to expanding their presence in Asia and North America, TPG is reaching out to Europe. Says Chambers: "It's our job to help the client with the process - because we know that process. Asia will always be part of our DNA, but we are now also exploring markets and opportunities in Europe and the Middle East. 2014 has been a good year, and we expect 2015 to be better. If you know the process you can help most anybody anywhere. It's about getting it done."

To set up a meeting at IAAPA with The Producers Group, contact Chris Homsley, chris.homsley@producers-group.com.



From Shanghai 2010 to Yeosu 2012 to Milan 2015

How creative teamwork and private funding saved the US Expo pavilion



In my career with the US Government (USG), working with the Department of Commerce, the US Information Agency and US Department of State, I have had first-hand experience of the creation of our nation's pavilions at world's fairs, beginning with Knoxville Expo 82 and continuing into the 21st century. My chronicles are published on InPark's website.

It was always an exercise in creativity to assemble funds and resources for these ventures, but US participation in world expos took a particularly bad hit when Congress restricted federal funding for them in a 1994 law (reinforced in 1999). A new model had to be developed. Federal funding, the mainstay for 153 years, was gone.

Something had to be done - or US pavilions would cease to exist. The solution didn't arrive in time for Hanover Expo 2000, unfortunately, but a new public-private model began to emerge soon after, and the US achieved outstanding pavilions at Aichi Expo 2005, Shanghai Expo 2010 and Yeosu Expo 2012. Next up is Milan 2015

Federal status without Federal money

The model uses a Memorandum of Agreement to link the Department of State with a private sector organization to produce and operate pavilions entirely with non-federal money.

Some key factors:

 A transition of responsibility for US participation at the State Department from the Bureau of Educational and Cultural Affairs to the Regional Bureau overseeing the country where the expo



James Ogul Special to InPark Magazine

will take place. This puts the action in the hands of the people most knowledgeable about the expo country and with the strongest interest and motivation in making the expo succeed.

- Direct involvement by Secretaries of State.
- Involvement of the State Department in the fundraising effort carried out by the private sector partner.
- An evolving climate of cooperation and mutual respect between the State Department and the private sector, forging mutually beneficial partnerships through pavilions' corporate participation programs.
- Growing understanding on the part of the State Department that US participation in world's fairs has a strong international diplomacy dividend.

From RFP to Participation Contract

The State Department authors and issues a Request for Proposal (RFP) to choose a Private Sector Partner (PSP) that will raise money for, design, build and operate a US Pavilion. A panel of experts evaluates the proposals. The winner is issued a Letter of Intent (LOI) indicating the goahead to raise money for the project.

Once a significant amount of the money required is raised, a Memorandum of Agreement (MOA) is issued. The Department of State works collaboratively throughout the process with the private sector entity. This is not a contract, nor is it a grant. After the MOA is issued the State Department is able to sign a Participation Contract with the Expo Organizers. The Private Sector partner with State Department assistance continues to raise the necessary money while completing the pavilion project.

It's safe to say there is a new era for US pavilions and a proven – if complex - new model for realizing them successfully. The progress of the US Pavilion currently under construction for Milan Expo 2015 further backs this up.

Milan 2015: Feeding the planet

Milan Expo 2015 will run May 1 - October 31, with projected attendance of 20 million. The theme of the expo, "Feeding the Planet, Energy for Life," will unite 147 countries around the challenges and opportunities facing our global food system and sustainability issues.

"Innovation is the lifeblood of the United States, and as a global leader in advancing food security, we are eager to seize the opportunity to get involved in the Expo in a major way" said US State Secretary John Kerry during the groundbreaking ceremony for the US Pavilion on July 16, 2014.

Featuring a fully-functioning vertical farm, the 20,000 square foot US Pavilion – designed by award-winning architect James Biber – will showcase America's rich agricultural history and innovation-driven successes with programs and events ranging from interactive exhibits and tastings to salons, workshops and more.

The Friends of the USA Pavilion Milano 2015, a 501(c)(3) nonprofit organization was selected by the US Department of State to design, build and operate the US Pavilion. Friends is a collaboration between the James Beard Foundation (JBF) and the International Culinary Center (ICC), in

Opposite Page

Artists Rendering of the U.S. Pavilion for Expo Milano 2015.



association with the American Chamber of Commerce in Italy.

The pavilion's management and program are directed by President Dorothy Hamilton (founder and CEO of ICC), CEO Charlie Faas, and Chief Creative Officer Mitchell Davis (EVP of JBF). Thinc Design has been selected to design the pavilion's exhibits and the University of Southern California will coordinate the Student Ambassador Program for which 120 American college students will be selected to act as escorts and docents.

The \$60 million USA Pavilion is being funded entirely through the generosity of corporations, organizations, universities and individuals. Current partners include GE, Brand USA, Uvet, DuPont, illy, 3M, McKinsey & Company, Microsoft, and Fleishman-Hillard.

US Ambassador to Italy John Phillips stated, "We rely on public-private partnerships to manage the American participation here. I am proud of this approach. We are grateful to the companies who have already made generous contributions towards the success of this Pavilion, and look forward to welcoming more sponsors, as we continue to put together an incredible team. We look forward to opening the doors of the USA Pavilion to you, and to millions of others."

The US Pavilion website: http://www.usapavilion2015.net

budget to \$63 million," said Winslow. "We hit the target and were able to save a little in both construction and operations, didn't have to use all of our contingency money and resulted in a surplus."

What spurred Winslow and Eliasoph to pursue this venture and present themselves to the State Department? It seems that the catalyst was simply seeing the need and knowing their unique capacity to meet it. Winslow is a recreational facilities and services consultant and contractor with a background in visitor attractions and feasibility analysis. Eliasoph is an attorney with relevant experience in government, the attractions business and Asia (she is currently president and CEO of Village Roadshow Entertainment Group Asia).

"Ellen and I had worked together at Warner Bros., specifically on a project in China," said Winslow. "Conversations with the US Consulate in Shanghai, the American Chamber of Commerce in Shanghai, the Shanghai Expo Authority and ECA [Bureau of Education and Cultural Affairs] at the State Department in Washington DC convinced us that a serious effort to bring about a US Pavilion was a worthy if risky endeavor. We believed an honest effort should be made so the US would not suffer the embarrassment of being the only major nation in the world not represented in Shanghai."

Jim Biber,

architect of the USA Pavilion, provides a construction progress report to U.S. State Department Deputy Assistant Secretary, Bureau of European and Eurasian Affairs, Julieta Noyes during her first visit to the Expo Milano 2015.

The USA Pavilions of 2010 and 2012

The following are excerpts from articles at www.inparkmagazine.com.

Shanghai Expo 2010

The US State Department issued a Letter of Intent on March 18, 2008 to Nick Winslow and Ellen Eliasoph, authorizing them to raise all of the necessary money for the pavilion. The funds would need to cover design and construction of the building and exhibits, plus offices and equipment, staffing, operations, and eventual disposal of the pavilion and its contents. The original budget estimate at the time the Letter of Intent was issued was \$84 million. "We reduced the



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Back at the State Dept., with the initial RFP process having failed we were contemplating the possibility of not participating at Shanghai. Winslow and Eliasoph formed an excellent leadership team, able to recognize and address the needs of the project immediately.

As Program Officer in my role for the State Department, my work included serving as a member of the Shanghai Working Group and advising our office director on management of the program. I also coordinated the vetting of 400 potential pavilion sponsors, and reviewed submissions by the private sector partner.

Following the 2008 presidential election, the new Secretary of State, Hillary Clinton, set up a group inside the State Dept. to support the effort, and named a Commissioner General, Jose Villarreal. "We began picking up steam," said Winslow. "Thanks to the terrific effort by our project management team, and our operations team headed by Mark Germyn, we opened on time and on budget."

The creative team that helped realize the USAP at Shanghai 2010 also included BRC Imagination Arts (guest experience design) and Clive Grout Architect. Electrosonic provided AV systems.

Yeosu Expo 2012

My initial role was to coordinate the RFP process, which resulted in several excellent bids, from which EarthEcho International was selected as the best. Their team was led by explorer, environmentalist, and social entrepreneur Philippe Cousteau, Jr. (Pavilion Chief Spokesperson) and his business partner Andrew Snowhite (Pavilion CEO). EarthEcho International is a nonprofit 5O1c3 organization founded in 2000 by siblings Philippe and Alexandra Cousteau in honor of their father Philippe Cousteau Sr., famous son of the legendary explorer Jacques-

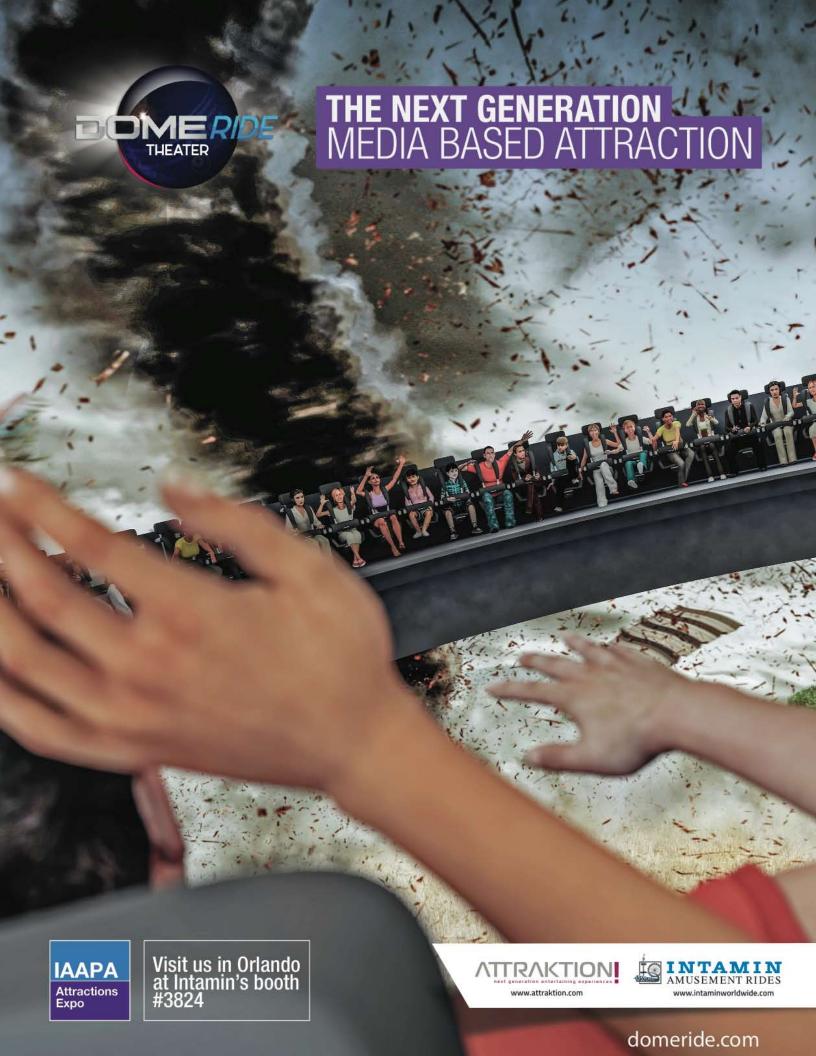
Yves Cousteau. Its mission is to empower youth to take action that restores and protects our water planet. This made the organization a perfect fit to develop and operate the US Pavilion at Yeosu.

Snowhite reviewed the guidelines of the RFP with Philippe, and with themed-entertainment legend Bob Ward, best known for his work as a creative executive for Universal Studios. Ward suggested approaching Phil Hettema for exhibit design, and Mark Germyn, who had recently served as COO of the US Pavilion at Shanghai. The State Dept. issued a letter of intent, and EarthEcho created sponsorship materials and began fundraising with strong support and involvement by Kurt Campbell, Assistant Secretary of State for East Asian and Pacific Affairs.

At a critical point during fundraising, the above-mentioned surplus from the USAP at Shanghai was a lifeline. Most of the total project budget of just under \$9.4 M was received by the end of 2011 to fund the 13,000 square foot pavilion. "With the agreement set with State, Philippe and I were thrilled to attend a State lunch in October 2011 honoring Korean President Lee Myung-bak, where Secretary Hillary Clinton formally announced America's commitment to participate at the Expo," said Snowhite. "President Lee noted it in his remarks and I heard it many times again from the Expo committee, that the Korean Government and the Expo Committee would not have considered the event a success if America didn't participate."

Eleven Fortune 500 companies contributed support to make the USA Pavilion a reality. Corporate sponsors included: Chevron; Citi; Boeing; Coca-Cola; Corning Incorporated; Hyundai Motor America; Kia Motors America; Lockheed Martin; Samsung Electronics America, Inc.; GE; and Becton, Dickinson and Company. •••

USA Pavilion at Yeosu, 2012Visitors wait to enter the USA pavilion and are treated to a multimedia presentation inside.





Brent YoungPresident &
Creative Director
Super 78

VR: It's back for good

Themed entertainment's new "golden age" is just warming up

In October, I moderated a roundtable discussion at the Visual Effects Society about the future of media in themed entertainment. It was exciting to see two worlds colliding: theme park designers and the creators of VFX for today's tentpole movies. We covered a lot of different topics, but there was one common thread in each conversation: virtual reality is going to cause seismic shifts in location-based entertainment.

As a design tool, VR is already shaking up our world. And small-scale virtual reality attractions exist right now – there are plenty of virtual roller coasters designed for the Oculus Rift. Very soon, we could be climbing into the Iron Man suit, or jacking into our own Avatar at parks and other entertainment venues around the world. Early virtual reality theme park attractions may be limited to low-capacity, upcharge experiences, but VR could eventually create a whole new category of attractions. We may someday combine virtual reality, live digital interactivity, 4D effects, and the physical sensations of a traditional thrill ride to produce relatively inexpensive yet stunningly immersive new experiences.

While Hollywood is dipping its toe into the virtual reality pool, the themed entertainment industry is swimming in the deep end. Disney's DISH (Digital Immersion Showroom) was a key tool in developing the Disney California Adventure park's new Cars Land. And soon after the first Oculus Rift development kit shipped, Super 78 created Mushroom VR™, our design development application. Mushroom was integral in the production of Movie Park Germany's The Lost Temple attraction. With this technology, we were able to streamline and expedite the attraction's development. More importantly, this immersive review opens up the process and creates more transparency. This is essential when working with brandholders to establish that high confidence level early in the process.

In my viewpoint, this means we are no longer hamstrung by the limits of CAD drawings and 2D concept art. Experience-based attractions can now be properly "pre-experienced" rather than just pre-visualized. And by bringing down development costs, VR will help regional parks to create attractions that would otherwise be prohibitively expensive.



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Beyond the concept and production phases, the opportunities for VR-based guest experiences are almost limitless. The "Augmented Thrill Ride Project" (http://vr-coaster.com) is an intriguing look down the rabbit hole. This partnership between a European university and Mack Rides synchronized a virtual flying experience with a real roller coaster. Test subjects wore an Oculus Rift headset while riding Blue Fire and Pegasus, two of Mack's roller coasters at their Europa Park in Germany. According to the researchers, it was a huge success. The test subjects were "totally amazed," felt no motion sickness, and were actually more comfortable riding with the virtual reality overlay than without it. Though just a first evolutionary step, it is a bold move towards enhancing VR with genuine physical sensations - a depth of immersion that will be difficult to experience outside of a theme park (safely and inexpensively) for a very long time.

Virtual worlds can be interesting to explore, but it's only when they are populated with virtual characters that they really come to life (especially when those virtual characters are already internationally beloved). Turtle Talk with Crush, Stitch Live!, Monsters, Inc. Laugh Floor, and Donkey Live! have proven that digital puppetry is

an engaging medium that works in many different languages and cultures. This year, Super 78 is using Geppetto 2.0™ our proprietary interactive character software, to develop the world's first stereoscopic interactive character attraction in partnership with Nickelodeon: Spongebob SubPants, scheduled to open at Moody Gardens in Galveston, TX, Spring 2015.

As ticket prices indicate, the general public will pay a significant premium for this kind of experiential entertainment, more than they will for movies, television, music, video games, etc. Comcast's recent purchase of NBCUniversal and their aggressive commitment to their theme park resort business speaks volumes, and they are not alone. Disney, Merlin, OCT Parks, Parques Reunidos, Wanda, Genting... This new arms race is global. The demand is there. The investment dollars are there. And the technology is very close.

The theme park industry is right at the nexus of movies, video games and experiential storytelling. We are once again blazing trails in high-tech entertainment, as we always have been – I don't think there's ever been a more fantastic time to be working in this field. ••••



LEADING THE INDUSTRY WITH THE **MOST INNOVATIVE NEW PRODUCTS** SINCE 1980





The immersive ingenuity of Attraktion!

Markus Beyr's companies redefine international entrepreneurship and themed entertainment genres



Judith Rubin InPark Magazine Attraktion! GmbH, a group of companies headed by Markus Beyr and based in Vienna, has introduced four new product genres in the last two years - Playoke, Dome Ride Theater, Cinesplash5D, and WeRobots - and reports having a similar number in the pipeline for the next two years. Attraktion! products are characteristically high-tech, media-based attractions, turnkey yet versatile - and each having a new twist, a new approach to integration – and near-instant market impact.

Says Beyr, Managing Director and Owner: "All the products we develop have been sold even before we officially launch them."

This estimable track record for envisioning, creating and bringing a new product and even a new genre successfully to market shows an ability to perform well all along the pipeline. The Attraktion! business gestalt evinces a confident grasp of technology, media, integration, and manufacturing; a genius for effective collaboration, bold imagination and a knowledge of global markets and marketing.

PLAYOKE (www.playoke.com) immerses a group of people in a video-led performance. The physically engaging, immersive experience is made personal, interactive and even competitive through a system of real-time, 3D group motion tracking. Attraktion! launched PLAYOKE Dance to leisure and entertainment markets last year at the IAAPA expos in Asia, Europe and the US. (PLAYOKE Courses, a version tailored to fitness markets, was introduced earlier in the year. It was well received and has already been adopted by exercise studios in Austria, Germany, Italy and Russia.)

Designed for out-of-home commercial use, PLAYOKE (patent pending) is scalable and readily refreshed with new content, customizable and theme-able to a specific venue, brand or IP. The market response to PLAYOKE Dance has confirmed its potential of PLAYOKE in leisure markets from FECs to theme parks to science centers to nightclubs.

In the month of December alone, several new installations of PLAYOKE Dance will open – at Futuroscope (Poitiers, France), Virtuality Center (Riyadh) and Dreamplay (Manila). Players, both kids and adults, will (depending on the site) be able to join the action to compete in dance clips, play entertaining and educational games or interact with characters from famous Hollywood IPs. Nicolas Mollet, project manager, Futuroscope, said "Playoke fits perfectly into our new area, 'Arena Fun X-periences,' as a new interactive feature. Our visitors will have a lot of fun!"

Dome Ride Theater: As a producer, Markus Beyr has been involved on numerous projects that incorporated media, motion simulation and wraparound projection. Examples include Marvel Superheroes 4D at Madame Tussauds London, the Aviation Dark Ride for the Aviation pavilion at Shanghai Expo 2010, and Arthur l'Aventure 4D at Futuroscope. These attractions were one-offs for

specific circumstances that helped prove the concept of integrating ride technology into an immersive dome theater for education or entertainment.

Attraktion! subsequently partnered with a top ride manufacturer Intamin Amusement Rides, develop the DOME Ride Theater® (patent pending, www.domeride.com), which had its official product launch at the 2014 IAAPA Asian Attractions Expo in Beijing. The Dome Ride Theater (DRT) design merges a steel ride structure with state-of-theart, full sphere projection to completely envelop the audience in seamless

imagery. "The aim is to transport the audience into a unique, themed environment and a different place and time, in a format that can accommodate the kind of throughput needed by theme parks and large visitor attractions," said Beyr.

Guests enter a hemispherical space and are secured with shoulder harnesses into seats ringing the perimeter. The center floor descends and the theater becomes a full sphere. 26 concealed projectors seamlessly cover the sphere. The ring has a range of motion enabling it to pitch 30-degrees to either side while the entire seating area can likewise rotate.

InPark Magazine spoke to Intamin Executive VP Sascha Czibulka at the DRT product launch in Beijing. Czibulka compared the ride system to a roller coaster, with the seating area spinning around on coaster track. Although a 30-degree pitch may not seem like very much to a seasoned coaster rider, Czibulka explained that a 30-degree angle in this configuration imparts significant G-forces that, if increased, would detract from a family-friendly design.

Chinese real estate developer Lewa Investment is the flagship DRT client, and the flagship DRT installation is set to open in 2016 in Shaanxi LEWA

Opposite: Dome attractions and interactive exhibits

Attraktion! creates different kinds of dome attractions. Visitors can either sit or stand within a dome exploring an immersive virtual environment.

Interactive exhibits are developed, designed and manufactured by the Attraktion! Group of Companies. Trillian, a German subsidiary, based in Berlin incorporates an extensive factory to produce exhibitions from start to finish. Photo: Markus Beyr, CEO and Owner of the Attraktion! Group of Companies

Next Page: Dome Ride Theater

Dome Ride Theater is a new attraction genre developed by Attraktion! and Intamin Amusement Rides. The attraction is a full sphere experience bringing visitors to another world via its immersive power.

Below: Playoke

Playoke is an interactive motion game experience for kids and adults. Visitors can dance along with pop music clips or mascots, play games, learn through "edutainment" and more. Players get points for their game performance in real time.





city, a mixed use complex, in Xian Province. Attraktion! is producing the media for the DRT, which will be part of LEWA Wonderland, a cartoon-themed park. At press time, Beyr reported that a second DRT attraction was under development and would feature a major studio IP.

Cinesplash5D (www.cinesplash5D.com) is a multimedia wet-theater attraction, meant to be experienced in swimsuits. When a product is branded 5D instead of 4D, we ask what the 5th D represents. In this case, it's water. The usual range of 4D effects – lighting, lasers, fog, audio, wind, etc. are joined by water effects that put everyone in the splash zone, allowing guests to get wetter than any theater-goer has been before. "A full range of never-before-seen effects in a 4D environment have been engineered by Attraktion! - from water explosions to theater flooding," said Beyr.

Like other Attraktion! products, Cinesplash5D is scalable and customizable: from 20 seats up to more than 100 seats, suitable for indoor or outdoor venues, and packaged to suit the client's choice of media, projection, animated seats, motion base and in-theater effects.

The newest Cinesplash5D installation is a 40-seat theater that opened in 2014 at Ningbo Hangzhouwan Dream Hotspring Water World in Ningbo, China. Markets for Cinesplash5D include waterparks, spas, resorts, zoos, aquariums and marine parks. Some venues will elect to offer such a theater as a separate-ticketed, standalone attraction and the package Attraktion! provides can also include assistance with marketing, promotions and operations.

Attraktion! is building a custom media library for Cinesplash5D theaters beginning with 'Storm Riders,' which Beyr calls "the world's first aquatic cinema title." A version will be available for regular 4D theaters as well, in spring 2015.

WeRobots: First introduced to the retail market at the MAPIC show in Cannes (which dedicates an exhibition zone to Retailtainment), and at Euroshop 2014 in Dusseldorf, WeRobots (www. werobots.com) made their leisure industry debut in June at the Asian Attractions Expo in Beijing.

Top: WeRobots

WeRobots serve as mobile customer support informing, guiding and entertaining customers. WeRobots are the first robots product by Attraktion! Customized designs for theme park shows and attractions are also available from We Robots.

Bottom: CineSplash 5D

Cinesplash5D is a newly created mediabased attraction combining a 4D theater with special water effects. Fountains, waterfalls, water explosions and many more other impressive special effects await visitors.





"Retailtainment" is the new differentiator to make a shopping mall stand out – to attract retail tenants and to give consumers a reason to go offline and shop at a bricks-and-mortar establishment. WeRobots are the mobile, interactive service robots developed by Attraktion! to help achieve that.

At the Red Star Macalline shopping center in Shanghai, 50 WeRobots are moving around, guiding and entertaining visitors. In Dubai, is using WeRobots as visitor guides at its Customer Care Center.

What WeRobots are doing for retail, they can do for theme parks, brandlands, science centers and other out-of-home attractions: Provide a differentiator, reinforce branding, raise visibility, drive traffic, garner press attention and engage and inform the customers. "WeRobots fit into any place where visitors and customers are seeking entertainment, information and guidance," says Beyr. Beyond their diverse functions, the "guidance" feature enables WeRobots to deliver quite personalized service by accompanying visitors to their point of interest.

They can also gather together and put on entertaining group performances, which Andreas Bley, Managing Director of WeRobots, points to as one of their unique, distinguishing features. WeRobots communicate with one another and interact with people in their environment. Their social skills are supported by an ability to orient themselves by measuring 3D space, identify humans and speak virtually all languages. Each is equipped for versatility with touchscreen, camera, and microphone, sophisticated content management system, RFID chip and telepresence capability.

The standard shape and appearance can be customized, and WeRobots can act as central showpieces in theme parks. A new, more abstract Robot/Race Car Design will become the second version available.

WeRobots will be in use at the Information Technology & Communication Complex, a world technology center for commercial and industrial business operations in Riyadh (ITCC Virtuality Center). The Virtuality Center represents the welcome hub of the 1.2 million square foot, \$495 million facility is set to open in 2015. The Center's WeRobots are loaded with comprehensive information about the exhibitions, and draw on this with their artificial intelligence resources to guide visitors. They will also engage and entertain people waiting in queue lines before the main show. •••

ITCC Virtuality Center in Riyadh

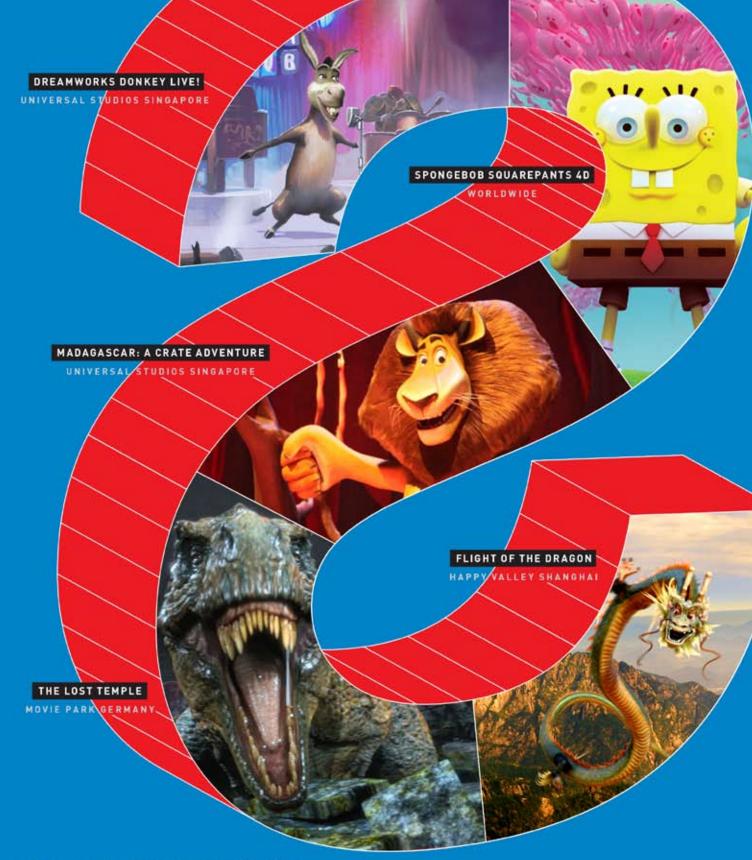
Developing projects from start to finish is one of Attraktion!'s competencies. Attraktion! has developed a unique combination of science center & family entertainment center called the "ITCC Virtuality Center" in Riyadh (Saudi Arabia). Attraktion! equipped the whole facility with interactive exhibits and with its own media-based attractions like WeRobots, Playoke, 360 degrees theater, and 4D dome. Attraktion! also produced all the films and media







Attraktion! is a specialized group of companies self-described as "permanently going through a mutation evoked by a unique, continuously growing product portfolio." Attraktion! develops, consults on, and stages attractions such as theme parks, amusement parks, brand-lands, FECs and science centers – and also creates a wide range of experience products. www.attraktion.com



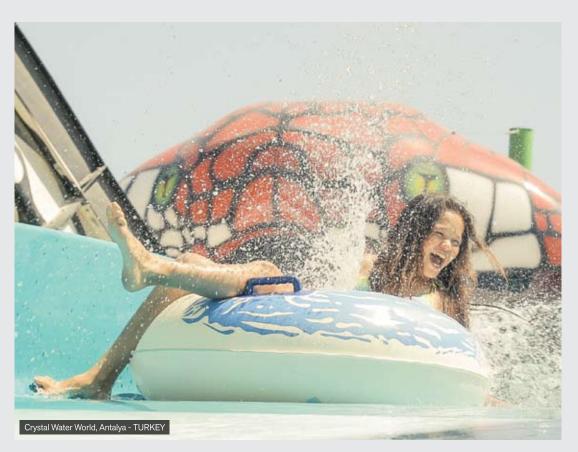
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Super 78 plays a key role in creating attractions that thrill, delight, and inspire. Whether working with global entertainment brands, or conceiving original IP, we design and deliver one-of-a-kind guest experiences. **And!** We invent tools that will produce the most exhilarating theme park attractions ever. Find out more at **super78.com/supercharged**



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Bumping up the bumper car





RDC bumpercar.com

Why are bumper cars as popular today as they were 80 years ago? At our company, RDC, a leader in bumper car manufacturing for more than three decades, we believe it is because they allow people of all ages the chance to battle and bump each other in a safe and fun setting.

While they've kept their popularity, they have also evolved with the times. "Bumper cars have come a long way," said RDC General Manager, Tami Dean. "Most people are familiar with the classic steering wheel amusement park cars consisting of long poles leading to an electric ceiling. In the old days, dodgem car ceiling systems were expensive. With today's existing technology, this is not the case."

Today, the industry trend is toward pneumatic tube bumper cars to cushion and better absorb the shock. RDC manufacturers three lines of highly durable Neoprene tube bumper cars: Krazee Wh!rl, Krazee Voltz and Krazee Kidz. RDC's

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most popular tube cars are usually purchased in conjunction with the company's patented electric floor platform. "Our electric floors are engineered to be very cost-effective," said Dean. "Most owners see a return on their investment within the first year."

At RDC we believe the decision to purchase an electric platform is only half the consideration. The other half is the long term cost in terms of maintenance and operation. Electric floor systems offer a constant power source and unlimited ride cycle which means no batteries to recharge, replace, or recycle.... ever.

Jack Canouse, Managing Partner of Stars and Strikes bowling centers said, "We are very happy with RDC's bumper cars and their electric floors. We have had other platforms, but RDC's electric cars and floors are certainly less expensive to maintain. Our staff is pleased with the technical simplicity of the system and our customers are thrilled with having both a bowling and bumping fun experience. The electric floor system was a long term investment and certainly worth it."

"The claim that walking on an electric floor might cause a shock is unfounded," said Dean. "RDC utilizes a patented, low voltage (24 v DC) system that is engineered to be one of the safest in the industry. We have sold scores of electric floor systems since the 1980s."

For more typical floor configurations, RDC also offers a line of battery operated cars, children's cars and gasoline powered cars. Dean said, "RDC manufactures and sells bumper cars and only bumper cars. We strive for competitive pricing, patent-protected technology and overall reduced operating expenses along with superior product that is innovative, safe and reliable. Those elements are key to our firm's longevity." •••



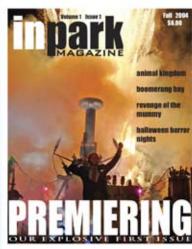
Photos courtesy RDC



InPark: Celebrating 10 years!!

Ten years ago, armed with thousands of copies of InPark's PREMIERING issue, Martin Palicki and supporters set up their first IAAPA booth. The following year, Judith Rubin, accomplished publicist and writer, published her first article in InPark.

Things have changed a bit over the years, so enjoy this trip down memory lane: highlights from our ten years of publications.

























MANUFACIURING F



INPARK MAGAZINE TALKS TO LYNN SINGER FROM KOALAPLAY GROUP AND JAN SHERMAN OF SALLY CORPORATION ABOUT HOW PARKS AND THEIR GUESTS CAN BEST BENEFIT FROM THEIR COMPANY'S YEARS OF EXPERIENCE.

park When you work with a client, how involved are you in setting direction for the project?

Koala: Depends on the objective of the client. We need to be in tune with the client's objectives, since we feel our success depends on our client's success. Age groups they would like to attract, revenue goals, community involvement, theming, water or dry play attraction. It also depends on the client's experience. Some clients have a set direction where as other clients need consultation from the manufacturer.

Sally: Sometimes the client has the concept, and sometimes they come to us and we do the whole thing. For example, Challenge of Tutankhamon was our concept. We did the original development work behind it, Six Flags found it, really liked it and adopted it. With Scooby Doo, the Paramount Parks started off with that concept as they had the rights to it and they knew they wanted to do an attraction ride with Scooby Doo. They had heard about some of our interactive dark rides, so several of their staff went to Lake Compounce to see Ghost Ride. They just loved it and felt it would work perfectly as a Scooby Doo dark ride.

inpark Do you coordinate press releases with the parks on premieres?

Koala: We definately will write the press release. We also offer to assist them with an article for the trades or other media outlets.

Sally: We provide the parks with numerous press releases. They utilize whatever they can. We try to make their job easier.

inpark How involved are you in the premiere of your products?

Koala: We are as involved as the client would like us to be. Some clients already have a system in place for promoting their installations, as they do it on a regular basis. They may only want to utilitze our library of images or video for the pre-promotion of the installation. Some of our clients who are not as familiar with the process may want our assistance planning the entire grand opening, from images and video for pre-promotion, to planning the grand opening day, to designing media invitations and follow-up with the media, to writing articles and press releases.

Sally: Our role is to be there for the client, to make sure that everything is working. We are happy to talk to the media, and make sure everything is running smoothly. Most of the parks do a wonderful job of opening their attractions and we are really just a resource for them. For Challenge of Tutankhamon, we were able to shoot some video at the IAAPA trade show the year before the ride opened that the park was able to use for their publicity while the ride was being completed.

Impark What suggestions do you have for park operators to help make the launch of your products more successful?

Koala: If you are new to the industry, work with the manufacturer to find out



Sally artist Randy Rhodes works on an interactive exhibit at Adventure Science Museum what resources are available to assist in a successful launch. If you already have a system in place for the launch, I would suggest still working with the manufacturer because they may have some additional thoughts and resources that the customer could utilize. Here are 4 stages for a successful launch:

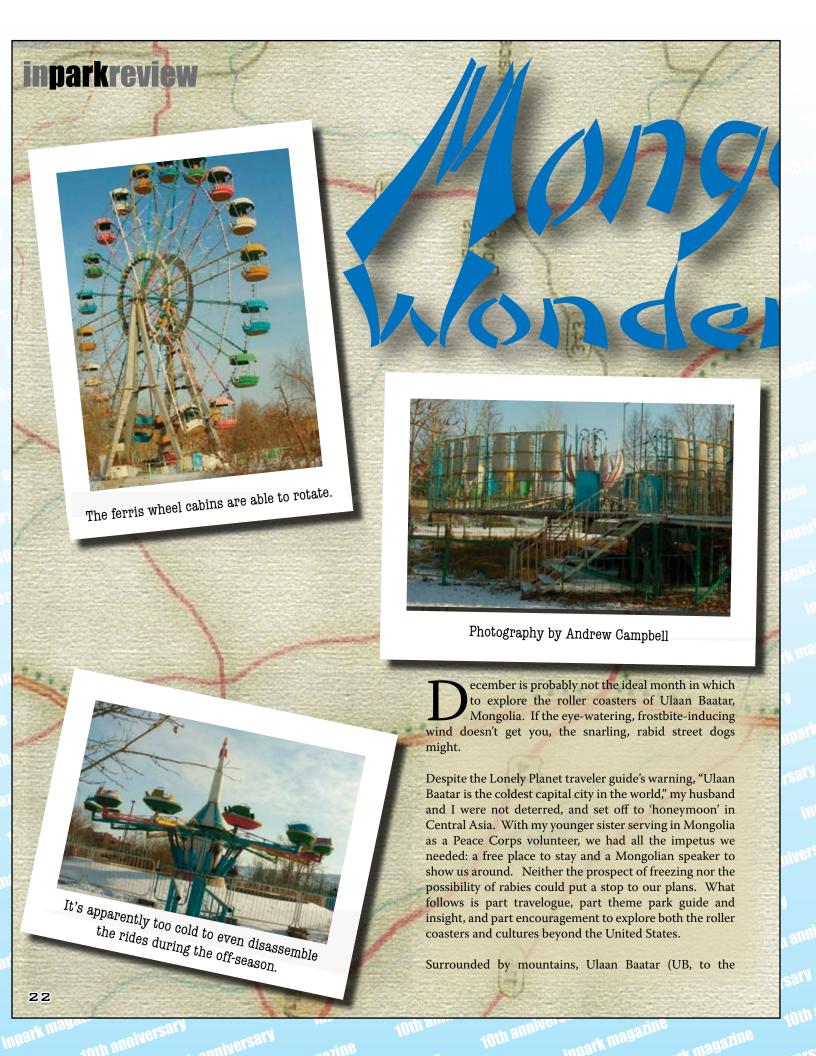
- 1)Pre-promotion press releases, advertising in local media, stunts
- 2)Media preview allow the press to get a first look and take photos
- 3)Grand opening for the public advertising, stunts
- 4)Follow up to the grand opening

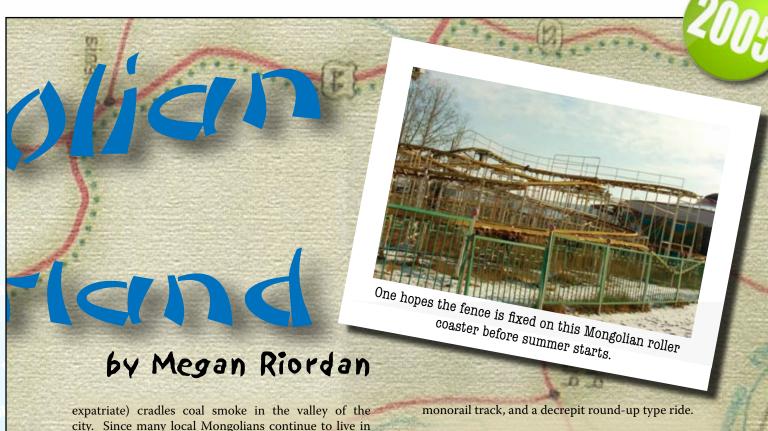
Sally: We can give them the benefit of our past experience with how other people have dealt with the process of premiering new attractions. We are currently talking about producing a presentation to give [potential clients] ideas for how they can handle these concepts and help promote it, as well as various avenues they can pursue because of the ride.

inpark When does your involvement with the client end?

Koala: We will work with the client as much as they would like us to. We assist in articles for them to gain attention throughout the year, we offer to work with them to submit industry awards, if they look to expand the park, we do the entire grand opening process over again.

Sally: Never. We tend to keep in touch with people all over the world. We call them up periodically and ask them how they are doing and to see if they need anything from us. Also, our customer service department is on call 24 hours a day to get help immediately should the need arise.





expatriate) cradles coal smoke in the valley of the city. Since many local Mongolians continue to live in traditional gers (circular felt yurts) fueled by coal, the scent hangs heavy in the air, clinging to clothes long after going indoors. Although smoke from coal burning may obscure some long range views in UB, Mongolia is nonetheless known as "Land of the Blue Sky," with over 260 sunny days a year (Lonely Planet, 2001). The day we visited UB's National Recreational Park, called Nairamdal Park (also known as Friendship Park or Children's Park) the sun beamed in the sky even as we inhaled -16 degree coal-infused air.

Entering through a wrought iron gate from a rather obscure side street, the park was - for good and obvious reasons - empty. A thin layer of snow frosted the ground and wild street dogs ducked in and out of sewer pipes seeking warmth. Unlike the large, commercial parks in the U.S., this one has no special signs, no football fieldsized parking lots, no banners or flags, and no admission charge - even in the summer. It's a "pay-as-you-ride" kind of park wholly under the thumb of Mongolian government control. That last bit might explain why, after countless attempts via email correspondence with locals in UB, we came up empty handed in our quest to find out the price of each ride. However, when one US dollar buys 1050 Togrog (the Mongolian currency), and admission to a nearly 200 year old Buddhist monastery is 2000 Togrog, I don't image a roller coaster ride would break the bank.

My husband and I counted five rides clustered together in one area: a Ferris wheel, a small roller coaster in the rough style of a wild mouse, a twirling tea cup-like ride, an "aerobicycle" sort of ride that resembles a bike on a In addition to rides, we also spotted a small, graffitisplashed movie theater and snack bar combination. Since popcorn, licorice, funnel cakes, and cotton candy haven't made it to UB just yet, and the favorite local dish consists of fatty mutton tucked inside dough and boiled, I can't quite imagine what this snack shack serves up. Not surprisingly, in mid-December, it too was closed.

Although our off-peak season travels meant we weren't able to sample any of the park's offerings, for the adventurous soul, Nairamdal Park should land a spot on the radar. While perhaps not as sexy or glamorous as parks in the U.S., Mongolia's scene provides something much more rare: an unfiltered experience. No fantasy castles with pastel spirals greet the customer. No promotions plaster brochures. No vendors hawk T-shirts or stuffed animals. In Mongolia, one simply walks into a real park, with real (though admittedly 1970's Soviet era) rides. That is the atmosphere of a park in Ulaan Baatar; just as the street dogs, icy winter winds, and lingering scent of coal are part of life in Mongolia as well.



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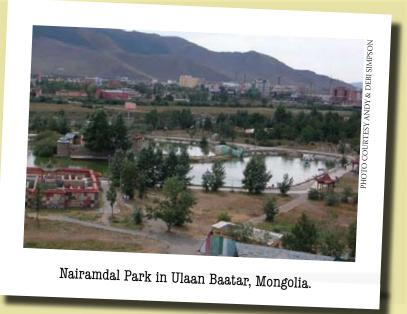


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Since the park only offers a small handful of rides, even the most gung-ho park enthusiast might start looking for something else to do. No worries, for Mongolia offers a wealth of other adventures for travelers. In UB, as mentioned above, there are several impressive Buddhist monasteries worth a visit. The most significant is Gandantegchinlen Khild (called "Gandan," for short), which houses a gold statue that stands over 80 feet tall and was consecrated by the Dalai Lama. Gandan is the largest active monastery in Mongolia, and on the day we visited our senses were treated to a feast: bald-headed monks cloaked in orange robes chanting, frost-bitten red cheeked children tossing crumbs to hundreds of pigeons, gray wings flapping, and local Mongolians dressed in traditional clothing spinning silver prayer wheels.

Having made our journey specifically to visit my sister, we were also treated to Mongolian hospitality in the countryside near Choibalsan, the small eastern city in which she lives. As writer Jonathan Maslow said, "the line between 'guest' and 'hostage' becomes vague" in Central Asia, and our experience held this to be true. Picked up in a narrow van by my sister's friends, we bumped off of the main road onto what can only be described as dirt: endless, far-as-the-eye-can-see craggy dirt steppe meeting a vast horizon. We were welcomed into a traditional ger where the following scene took place: our host offered (read: demanded) we drink vodka shots. Being a non-drinker, my husband and sister bravely stepped up, consuming 8 large shots in the space of two hours. Food was piled on a low table before us: gazelle meat stuffed into boiled dough, hard chunks of fermented mare's milk, white cheese, candies, a thick side of mutton (or was it yak?), and steaming cups of buttery, salty tea. My slightly inebriated husband and I were dressed up in traditional clothes and colorful hats, and led outside into the bitter winter air to ride horses and camels while our hosts looked on, smiling (and no doubt laughing).

Clearly, the magic of Mongolia includes far more than a stop in Ulaan Baatar's Nairamdal Park. If roller coasters are your driving passion, you will likely be better served by a Paramount Parks or a

10th anniversar

Disney trip (unless, of course, you are deeply passionate about 'old-school' rather sketchy rides). However, if the appeal of exploring a vast, wild country outside of theme park rides inspires you, Mongolia awaits. But, unless you happen to like dressing like the Michelin Man, I'd recommend waiting until springtime.

For more information on Mongolia, visit www.21DaysInMongolia.co.uk









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Some of TEA's best and brightest stars turned out for the annual Thea Awards, held at the Disneyland Hotel March 3rd.



LEED-CERTIFIED STUNNING April Johnson looks ravishing in red.



SCARF COUTURE Is that Meryl Streep or ${\bf Louise\ Upson?}$



CINDERELLA STORY **Tisa Poe** is ready for the ball in this blue beauty.



Thea's Best Dressed

THREE'S COMPANY Shawn McCoy, Raina Ross and Andy Gregory prove everyone looks great in black.



THINK & DRESS WELL



IT'S ALL SMILES AFTER THE AWARDS Kelly Ryner & Craig Hanna Roberta Perry, Dawn Lunde, Brian Edwards & Susan Cowan seemed to enjoy the night.



MELISSA IN THE MIDDLE Kirk Kennedy, Melissa Townsend & Ron



A NIGHT AT THE DIVE IN Sea World's Robbin Sheets & Rick Shuiteman make a splash with Super 78's Dina Benadon



CAN YOU HEAR ME NOW? AV Experts Lisa & Steve Thorburn



POWER TRIO Michelle Berg, Monty Lunde & Pat Scanlon



I'M PROUD OF YOU, DAD! John & Bob Rogers



DOUBLE TROUBLE



THE FUTURE OF FUN IS HERE Eddie Newquist & Judith Rubin Juleigh DeCarlo, Beth Semler, Rich Marmura & Lenny Larson from the ETC at Carnegie Mellon



IT'S LADIES NIGHT Bonnie Sinclair, Tanya Loh, Jennifer Miller, Kim Clark, Merrill Puckett-Miller & Dina Benadon



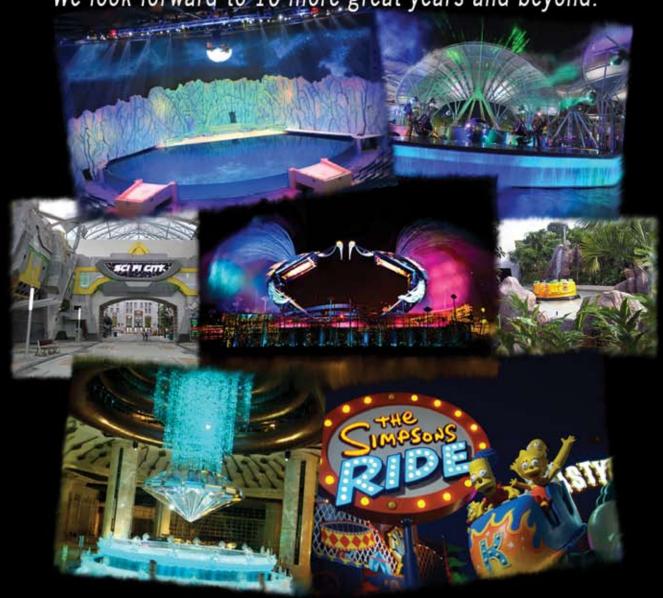
SOMEONE TO LOOK UP TO Gary Goddard & Taylor Jeffs ham it up for the camera

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CONFESSIONS

FORMER

How Yesterday's Theatre People Make Today's Museum Exhibits Rock

by Thursby Pierce, Electrosonic Systems Inc.

Ah the good old davs...

Roll out of the tour bus at 7:00 am after three hours of sleep in a swaying tin can. Race into the arena ready to unload 12 trucks of lighting, audio, video and staging gear. Install the whole show in eight hours. Sound check at 5:00 pm. Mix the audio (either for the monitors or the main house system; usually my job was the monitors – this was in the days before in-the-ear monitors) throughout the course of the two-and-a-half hour show, tear it all down and load it all back into the trucks to take to the next town for another show tomorrow. All of this is accomplished working with a local tech crew whose only real motivation is what swag they get at the end of the night. (For you nonroadie types, that's T-shirts and any other trinkets the band

> chooses to pass out as thanks for 18 hours of hard work.)

JUNE '90: WE GHALL NEVER SPEAKER

OF THIS AGAIN!

On one particular day in June of 1990, as I approach the loading dock to begin my day in some arena in the heartland of America, I hear shouting and see people scrambling to the dock. It seems the truck driver hadn't checked the load bars on the truck. Since the loading dock was down a 30-degree incline, as he backed down the ramp to the dock the whole audio system unloaded itself on the pavement. We get the equipment loaded in and the show comes off with out a flaw. This in a nutshell is what a roadie deals with on a daily basis – what I dealt with on a daily basis for some 15 years, as a former audio engineer/production manager of many live show productions and heavy metal bands touring the world's arenas and theatres. You run into many challenging technical situations that test your ability to adapt – and usually your only choice is to adapt.

I know many of you reading this are thinking, "This is another article by some former hippy longhair who doesn't have a clue about our industry, even if he can keep his drug-induced flashbacks in check. What's this story doing in a museumbased editorial section?" Well, (with the possible exception of the drug-induced flashbacks) it turns out that those years on the road were not wasted. A background in live theatre and show production translates quite well to the museum industry, and that's what this article is about. I was approached to write this not long after the December 2006 opening of the National World War I Museum in Kansas City, MO. The editor had interviewed me about the project, and she sniffed out my stage production background when I blithely uttered the words "rough swaq" (not the same kind of swag that rock bands give out). The \$102 million renovation of the museum was conceived by renowned designer Ralph Appelbaum. As project manager for Electrosonic, I was in charge of the multimedia design/build team for the project. (We roadies can actually hold down real jobs now that we have wives and children to support.)

There are many similarities between what I currently do for Electrosonic and my past life on the road. In today's world of high tech systems integration, much of what we do is driven by the same brains that think up the blue-sky ideas for theatrical productions. That's because museums, theme parks and cultural centers draw from the same pool of creative and technical people to bring their ideas to fruition. Today's museum designers are pushing us right up against the bleeding edge of what technology can handle, to tell their stories in the most effective ways. This brings my background into play, because the touring entertainment industry has always been a testing ground for new technology. Entertainers are always willing to take the big risks to entertain their fans, and we technical managers and engineers who live in the real world are

there to ground these people with reality. In the same way, theatre producers count on us to help them identify the most exciting solution that is both show-stopping and practical - and then pull it off. The difference is that now, instead of

inpark magazine

May / Jun 2007 | 15





puzzling over how to hang a gigantic, animatronic skull over a stage full of heavy metal rockers, I am working with our engineers to figure out how we can blend six projectors together to get a seamless image that is 200 feet wide.

Today's museum exhibits feature plenty of interactive, touch-sensitive, sensory, stimulating learning experiences in keeping with the media-rich world in which our public now lives.

Accordingly, more and more we're called upon to install large, immersive theatre systems to thrill visitors (while educating them and spurring them to think about things) and bring them into an exhibit much as a live show draws an audience in and makes them forget their surroundings and exist in a different world for a few hours.

Theatrical Horizon

At the WWI Museum the highlight is the Horizon Theatre. Visitors walk out onto a balcony and gaze out upon a 125-foot wide, full-scale battlefield mock-up/tableau with genuine period artifacts - complete with mud, downtrodden soldiers, craters and blown-up bits of cannons and caissons. Behind that, as a backdrop to the tableau, is a 100-foot-wide by 25foot-tall projection surface. The designer of the show, Donna Lawrence (Donna Lawrence Productions) elected to use a scrim-like material swagged (there's that word again) with rough pleats and draped to give it an old-world feel. Most of the content imagery is authentic film and still footage from the era, edge-blended with multiple projectors, and most everyone on my team expressed doubts about how it would look on this surface. But when we began image testing on the screen, it became apparent that it was going to work very well and that it would be a very moving, theatrical experience. Donna and her team did some amazing things with the content, telling the story of how the US and the rest of the world were affected by this global conflict that was supposed to be "The War to End All Wars." They developed some content specifically for the moving head, digital lighting/video projectors that were part of a dynamic system specified by the lighting designer, Technical Artistry. The lighting effects were employed to great dramatic effect, using static theatrical lighting, moving light fixtures and the digital projectors to complement the video presentation. Much of the technology in that theatre could be used on the next U2 world tour.

As we worked through the design and installation of the Horizon Theatre we found it both natural and useful to employ standard stage terms such as "upstage" and "downstage," "stage right" and "stage left" in order to identify points on the lighting trusses and where images would be projected. Some of the people on the project had not worked in a stage environment, and didn't know stage left from house left. The lighting designer and I had to translate these coordinates for them. This is often a typical situation because of that common creative talent pool I mentioned earlier, that everyone draws upon. On the teams, in the trenches, and on the conference calls of the production process for the modern museum exhibit are teams peopled with crossover show directors, designers, producers and technical integrators who also work on film, video and theatrical productions, and in entertainment venues such as theme parks. With their various backgrounds, part of the process is finding a common language so they can talk about the project.



While their terminology may vary according to their backgrounds, those crossover team members all know the conceptual process and the production/installation drill. The various phases you go through to design, build and install complex technology systems in a museum are the same as when you plan a tour with a rock n roll band or plan an attraction at a theme park. You have many conference calls discussing the creative intent. Drawings are passed back and forth; considerations are made for the particular venues' regarding facility impact. Specialists such as acousticians, scenic designers and effects consultants are all brought in to help through the process. Planning a museum renovation is no different.

In the theme park and road show environments you learn a great deal about the durability and reliability of the various pieces of equipment used in today's multimedia systems. At

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10th suniversus magazine

the theme parks, operating hours are typically 12 hours per day off season and up to 18 hours per day during the busy seasons. We generally recommend that our systems be left powered up 24/7. You have a considerably lower MTBF rate, (Mean Time Between Failure), if you're not switching everything off every night and then expecting to bring it all up cold in the morning. Places where you have guest or operator interfaces such as touchscreens or switch panels, you have to consider the amount of cycles the particular unit or part can withstand. You would be amazed at how many of the clients we work with require such devices to handle millions of cycles before failing.

On the road, you have to take into consideration all of the abuse the gear takes in the trucks, packing and unpacking every day. Outdoor venues can be very dusty, dirty, hot, or - worse yet wet. We have to consider the same parameters when specifying equipment for a museum exhibit. Is it spill-proof? Can the 10-yearold child with the sticky hands and a slushy find his way to the Internet through the touchscreen? Is the item safe for any guest to be near or under, to touch, push or generally interact with? Show and theatrical people bring this experience with them to the museum industry. We are all tasked with outdoing what was done before. Push the envelope with the technology; make it bigger, better, more exciting then the guy down the street. My general manager at Electrosonic keeps challenging us with the words, "If it were easy, everybody could do it." So we former roadies and theatre techs will continue to produce for our clients what was thought impossible only yesterday, and make their museum exhibits meet the expectations of the creative folks, and, ultimately, the museum-goers of the world. **i p m**



Thursby Pierce, Carefree Roadie

Thursby Pierce's career in live production commenced in 1979. He was production manager for a friend's band (Full Moon) touring the northeastern US for several years. In the early 1980s he began working as a system engineer on multimedia systems for theatrical and industrial productions throughout the NYC metro area. In 1984 he hit the road again, in demand as an audio engineer/production manager for a number of top touring acts, including Anthrax, Blondie,

Deep Purple, Iron Maiden, Kiss, Ozzy Osbourne, The Ramones, and Reba McIntire.



Thursby Pierce, Project Manager & Breadwinner Thursby Pierce (thursby.pierce@electrosonic.com) project manager for Electrosonics Systems Inc., has more than 25 years of multimedia entertainment technical show and project experience. During his "roadie" years, in addition to being a sound tech he acquired familiarity with laser special effects, lighting and film projection. He was part of the Universal Studios creative technical team that designed and built Islands of Adventure in Orlando, and then spent two years as one of the technical project managers for Universal Studios Japan,

building the Spider-Man attraction. Other recent projects include Ringling Bros. Circus Museum, World of Coca-Cola Museum, Smithsonian National Zoological Park, Singapore Discovery Center, Restless Planet Theme Park (Dubai), Hard Rock Café (San Juan) and Adidas America Corporate Center.

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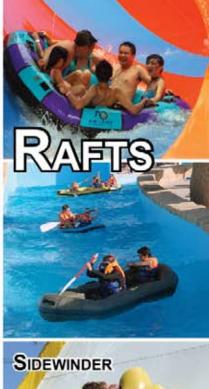




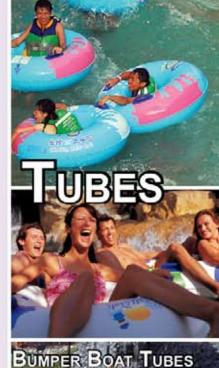




ROPE & NETTING











Where can you take a ride with the Simpsons, play virtual carnival games, escape a dragon's lair, explore the inside of a dinosaur or rock out with Led Zeppelin? At the nation's variety of theme parks, waterparks and museums, of course. And a scant five years ago, none of these experiences were available. Despite changes in the economy, themed entertainment has continued to evolve and produce new ideas and products.

Naturally, the AV systems required to produce these attractions have advanced and changed as well. We sat down with some of the creative forces behind the themed entertainment market to find out what trends have informed this industry and what direction the technology is headed.

control is everything

For a long time, operators and developers were hesitant to utilize PC's to control AV equipment. The perceived reliability issues of PC's have slowly eroded away to the point that they are quickly becoming the preferred method.

"More and more facilities, museums and corporate centers especially, do not want specific AV control equipment anymore," says Mad Systems President Maris Ensing. "They would rather utilize a PC where they can hire an IT person to maintain the system." Mad Systems is an AV integration firm that specializes in museum and cultural projects. Their recent renovation of the Griffith Observatory in California utilized over 80 PC's that run everything from the power



The Simpsons ride's four digital projectors cover the 90foot-tall domed screen with crystal clear digital renderings of the characters. Photo courtesy of Universal Studios.

flight of imagination

analyzing AV market trends in themed entertainment by martin palicki

management systems to the AV components. Their installation of the Blue Planet Theater in the Gwinnett County Environmental and Heritage Center in Georgia utilizes a mix of audiovisuals and multimedia including highdef video projected onto a waterscrim, waterbased foggers, simulated rain and waterfalls, seat rumblers, specialty lighting, and a 9foot-diameter reflecting pool from which a topographical map emerges to become a projection surface- all of which is controlled by PC's.

"Backup systems are now quite simple, costeffective and completely reliable," explains MediaMation's Dan Jamele, whose company also provides AV solutions for the themed entertainment market. That safety net has helped encourage institutions to move that route. Additionally, PC controls are easily networked and allow for remote monitoring. "We can run diagnostics and solve most problems from our offices in California," says Ensing. "That saves the client money and inordinate amounts of time that would normally be eaten up by transportation."

interaction equals satisfaction

Every step forward in the evolution of the themed entertainment market has led toward more interaction for visitors. As Maris Ensing puts it, "Interaction is not just a requirement, it is the standard." Nowhere is this more evident than in the museum market, where according to ETI President Brian Edwards, museums have really started to compete directly with schools. "Of course, museums are still competing with theme parks for that leisure market, and still borrowing heavily from their design models," says Edwards.

"But they will start to focus more on partnering with schools and help provide that which schools cannot, namely focused, interactive experiences for students to learn from." Content is king, and museums are working harder to provide actual learning experiences, rather than just showcasing knowledge for students. That means an increasing amount of AV integration, a change in the technological, and a shift in the methodology of application.

sensing rfid

According to some industry experts, the greatest potential is to be found within RFID (radio frequency identification) technology. John Miceli, president of Orlando based Technomedia, reports that there are currently projects in the works where RFID will adjust seats, lap bars and conditions that will make for a safer product tailored to the likes of the rider. Technomedia is no stranger to AV integration. They have recently worked on a number of high profile on-board audio systems for the new Hard Rock Park in Myrtle Beach, SC and the Hollywood Dream: The Ride at Universal Studios Japan, where guests can choose one of five songs to listen to during their ride. RFID could allow songs to be chosen based on the visitor's previous preferences, or even be integrated with several on-board camera systems, which will store on-ride video or photography for the guest to view and purchase. Systems that capture on-ride video such as CDRide are already available at many major theme parks, so integrating an RFID tracking component seems a logical next step to many.

"To the savvy developer, RFID tracking can be paired with a database, reporting what people do, where they go and how much time they spend there," says Steven J. Thorburn, President of Thorburn Associates, Castro Valley CA and president-elect of the Themed Entertainment Association (TEA). "Not only will the operator be able to provide proactive guest services such as collecting on-ride photos and videos for the guest, but they will be able to more effectively

Used with permission of Testa Communications from the September 2008 issue of Sound & Communications magazine. For more information, go to www.soundandcommunications.com oth anniversary

analyze and plan future developments based on precise data from RFID tracking."

However, rolling out full-scale RFID projects still has a few challenges to overcome. According to Ensing, "The systems have to be completely secure in who/what they are sensing, and they must be able to recognize multiple tags with various signal strengths. The cost of sensors also has to come down before they are truly ubiquitous."

The International Association of Amusement Parks and Attractions (IAAPA) utilized RFID sensors at its annual trade show in November, unobtrusively scanning guests as they entered and exited the trade show floor in a clear sign of support for the emerging technology. The trade show market stands to benefit from the technology, which replaces bar code scanners, requiring additional staff and slowing down traffic flow into and out of a show floor.

more than a touch screen

For years most levels of interactivity terminated at the touch screen. Museums especially have utilized touch screens to provide visitors the opportunity to select which direction they want to pursue, but some are sensing a change in that trend, and see museums requiring more than a touch screen can offer.

Mad Systems is banking on clients seeking out more mechanical interaction for their guests, moving to more of what theme parks are able to provide, although perhaps not on such a thrill-based scale. "Pretty soon nearly all home computers will have touch screens, especially as multi-touch becomes available in about five years," explains Ensing. "There will be a renewed interest in actual mechanical interactions, because the touch screen video interaction will be available at home."

The trend is already visible as places such as the Kidspace Museum in Pasadena, CA, where visitors are encouraged to play, dig, climb and explore the many highly themed environments the museum offers. But a return to mechanical components won't mean AV experts are no longer needed.

transparent integration

While AV components may become less apparent, less visible to the guest, in the world of themed entertainment, they are actually becoming more important, and more integral to the whole process. Instead of merely supporting or enhancing content, AV is expected to help contribute to the actual storyline of a project.

Many themed projects are creating storylines that begin even before the guest arrives, via the internet. A web site allows visitors to become familiar with a storyline and follow it through the attraction or exhibit. Interactivity starts online with a game or contest, and continues at the museum or park, and can even extend beyond the visit in the form of video and photos available online.

The full integration of technology throughout a property is evident in a Mid-East project ETI is currently working on. Guests will literally log on with their cell phones as they enter and be able to interact with components of the development throughout their visit.

Walt Disney World experimented with (and appears to currently rolling out) such a system with the Kim Possible World Showcase Playtest. Inside EPCOT park, select guests were given special cell phone transmitters themed after the Disney show Kim Possible (and called Kimmunicators) that guests would use at seemingly benign locations throughout the park. The phone activated audio, video and mechanical effects that helped the guests solve the mystery. The AV was completely integrated into the existing architecture so that guests not participating in the program were not aware of the special promotion, while still providing a magical experience for those involved. The project was so successful it earned a Thea Award for Outstanding Achievement in 2007.

Nowhere has the total integration package been put into better use than at the Discovery Science Center in Santa Ana, CA. Their DinoQuest adventure integrates mechanical effects, lifesize play structures, RFID activated effects, and a virtual challenge from the scientists at Dino Quest Headquarters. The center bills the exhibit as a fully "interactive, electronic exhibit where guests are... characters in a video game that has 'come to life.'" (www.discoverycube.org)

The complete integration of such a highly interactive exhibit required the skills of industry designer and fabricator Lexington, AV experts, and the RFID application provided by MagiQuest, which has rolled out multiple RFID interactive adventures throughout the country and continues to partner with museums, theme parks and attractions on new concepts.

complete and utter immersion

"Being in the middle of a fully immersive environment that you cannot effect or control to make your experience be different each time is how most attractions have historically been," says Technomedia's John Miceli. "It's always fun to go through the Haunted Mansion or ET's Adventure, but they never change. With the new possibilities on the horizon, the experience can change and be much more realistic and interactive- giving you a reason to come back over and over again for that different experience."

But how is that total immersion best created? The answer depends on which market you are considering. Waterparks, for example, have only recently started to break into the realm of themed ride experiences. With a nod to their theme park counterparts, waterslides have recently been infused with AV effects, and a themed storyline to match. Technifex Products recently exhibited waterslides outfitted with waterscreen projections and interior lighting effects at the WWA Trade Show.

Tim Gantz, owner of Noah's Ark Waterpark in Wisconsin Dells, WI agrees that waterpark theme immersion seems to be heading that way. "We just put a giant dinosaur head and sound effects in our Time Warp ride," explains Gantz, "but we have been concerned about the corrosive elements affecting [AV] hardware."

There's no need to worry, claims Thorburn Associates' Steve Thorburn. "Coming from the San Francisco Bay Area, we are well aware of many corrosive-resistant products that can easily be used in a waterpark environment." This summer, Schlitterbahn waterpark in New Braunfels, TX retrofitted an existing slide to create Dragon's Revenge, a highly themed waterslide experience that utilizes waterfall projections, lighting and sound effects, foggers and fire effects to create a slide experience that takes riders through an abandoned castle inhabited by a fierce dragon.

Splashtacular has produced designs for an Alien Invasion slide complex that includes a rotating elevator platform for rafts, fiberoptic, audio and projection effects. The designs were showcased at the World Waterpark Association's 2007 expo, though an installation has yet to be announced.

But waterparks are at a point now where theme parks were twenty years ago. How can theme parks (or museums, for that matter) create fully immersive environments today? The answer is nearly unanimous: projection!

"Imax Corp. started the business of full immersion in the 1970s by creating giant screens that filled guests' field of vision and surround them with a completely new environment," explains Thorburn, who has



13

provided quality certification for large format theaters and worked on projects for the likes of Lucas, Dolby and Disney. For some time attractions moved away from large screen projection, but with the arrival of increasingly cost-effective digital systems, the trend is to incorporate more projection into the totally immersive experience.

Both of the world's top theme park chains, Disney and Universal, opened up sister attractions at their California and Florida coasts this summer that rely heavily on projection to create the immersive environment. Disney's Toy Story Mania combines a typical dark ride vehicle path where cars stop briefly in front of screens depicting carnival game booths from the Toy Story franchise. Guests interact with the game by firing cannons mounted on their car, while their glasses allow them to see in 3D their real time score and progress. The completely digital projection system allows Disney to upgrade or seasonally theme the attraction relatively quickly, a benefit, according to Thorburn, many parks might not have initially realized. "Changing out an older attraction or show meant a venue would have to be shut down for at least a year," says Thorburn," but with a digital system, changes to the software or content are relatively quick, easy and cheap."

Universal Studios unveiled The Simpsons Ride at both of its US parks. Utilizing the building and concept from the Back To The Future ride, Simpsons makes use of a giant domed screen and four Sony digital projectors to create a cartoon environment that motion base simulators react to. Video experts Electrosonic helped create the projector system that brings the Simpsons characters to life. The use of multiple projectors provides a resolution and luminosity superior to Back To The Future's film version. Also, though no announcement has been made, the ride's creators did see a potential synergy between the Simpsons' Treehouse of Horror franchise and the park's extremely popular Halloween Horror Nights event- a seasonal overlay that would have been cost-prohibitive in a film environment.

What about the smaller players? "3D and 4D continue to be popular in a wide variety of markets," explains MediaMation's Dan Jamele. "It is still a passive experience, but it is incredibly popular, and venues have learned that they can show multiple titles at one time and increase attendance." Museums have been quick to convert to 3D and 4D, such as Chicago's Shedd Aquarium, which recently traded in a small presentation theater for a 4D model and began showing SpongeBob Square Pants: 4D. Interestingly, Noah's Ark Waterpark

also shows that same movie in what it calls a Dive-In theater, where the special effects are no less dramatic, only a lot wetter.

"There are certain experiences that just seem to be natural draws for audiences," says Jamele, "and when you get a product [such as SpongeBob] that has a wide appeal, there are plenty of opportunities to utilize AV systems to differentiate and develop that product." Even with the benefits of projection and 3D or 4D, there still seem to be limitations on merging both immersive environments with interactive ones, though that barrier is being eroded.

People are looking for that group interactive experience and to have it be fully immersive. Unfortunately, the average park or museum hasn't had the budget to pull it off, but another group has, and it's a group that is expected to grow in its use of immersive and interactive environments: the US Military.

The Great Lakes Naval Base in Illinois worked with a host of themed entertainment producers, among them ETI, to create the most lifelike and reliable interactive training simulations, known as Battlestations 21. The simulated ship experience puts trainees on a vessel in the middle of the ocean for 12 hours and throws a wide range of simulated disasters at them, all within the safety of the simulator environment.

"Just as in real life, each person is responsible for a certain task or position, and their individual actions affect the entire situation and change the results for themselves and everyone else," explains ETI's Edwards. "The military wanted people to have their natural reactions under stress to be played out in a controlled environment." The result is not an entertainment masterpiece, but rather a sophisticated training simulation masterpiece, complete with just about "every effect and gag we've ever worked with."

Edwards sees more growth in this area for all branches of the military and government, as the process goes full circle. "The theme park sector took simulation technology that the government had devised and we made it cost-effective, enhancing it with effects," says Edwards. "Now the government is going back to those simulators and working with the theme park people to take it to the next level and push the technology forward."

While every client may not be as big as the US Military, the effect of such big projects does work its way down throughout the market, and the technology becomes cheaper and more accessible. Particularly as more and

more developers are looking to themed entertainment designers to work on projects, the opportunity to integrate advanced AV systems into what at one time might have been a more straightforward application continues.

"Developers are certainly aware of all that is out there," claims Edwards. "They look at all aspects of a project, and want to make sure that everything not only achieves the project's main mission, but also works to make them money in the process." That means AV designers must be more involved in the project to ensure the AV components all support the main narrative in the project. In addition to being knowledgeable in the technical specifications, AV designers have to, as Brian Edwards likes to say, "use the other side of their brain" to embrace the creative component.

Because if one thing is certain, it's that people will still want to be entertained and told a story, whether it is in a theme park, museum, or even a corporate center or retail development. Steve Thorburn has made it one of his goals as TEA president to ensure developers are well aware of the benefits themed entertainment providers can produce. "We will be working hard to let everyone know that the themed entertainment industry, including architects, writers, designers, fabricators, and AV specialists, are necessary to create the best immersive and interactive experiences of tomorrow."

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More information on any of these projects or companies can be found on the web:

Electrosonic

www.electrosonic.com

ETI

www.edwardstechnologies.com

Mad Systems

www.madsystems.com

MediaMation

www.mediamat.com

Technomedia

www.gotechnomedia.com

Thorburn Associates

www.ta-inc.com





the making of jungala

It has been almost a year since Busch Gardens Africa opened their newest themed adventure zone, Jungala. The large, heavily themed land combines new interactive animal experiences, educational opportunities, wet and dry play areas and amusement park rides. Jungala was created out of the park's old Congo Area, and has been a hit with guests since its spring 2008 opening. The project recently won a Thea award, presented by the Themed Entertainment Association this past March.

Throughout the creation of Jungala, Busch Entertainment worked hard to reflect their company's core values of conservation and preservation. Jumana Brodersen, a lead designer on the Jungala project, provided InPark with little-known green facts about how the area was created.





Demolition of the old Congo Area

- •Relocated two large Live Oak trees and many smaller trees
- •Sent all pressure treated lumber (330 cubic yards) into the re-use market
- •Recycled all rebar (180 tons) and scrap steel from the Python coaster (128 tons), plus 9,000 tons of concrete from sidewalks and structures

Construction of new Jungala Area

- •Trex decking a composite material made from reclaimed wood and plastic – used in play area and orangutan habitat
- •All lumber for new-wood construction on-site is from reforested areas
- •New steel structures include recycled content
- •Use of slate and other natural roofing materials reduce need for manufactured products
- •Restoration of Vivi Restaurant reduces new construction waste
- •Employing local steel fabricator and subcontractors reduce shipping impact and transportation emissions
- •Open-air designs maximize natural light and air flow to reduce power usage **ipm**

-Photos by Martin Palicki





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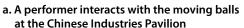


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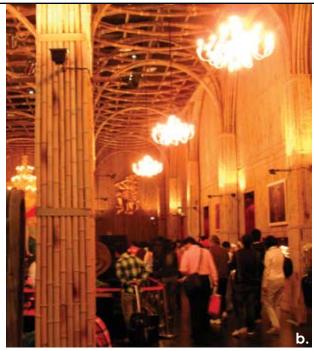






- b. The bamboo cathedral of Vietnam
- c. It's whimsy and smiley faces at the Oil Pavilion
- d. Even the highways of Shanghai are adorned with color-changing LED lights
- e. Inside the Magic Box at the State Grid Pavilion with projection surrounding guests







Five Things I learned from the Expo by Martin Palicki

- 1. The real planetary problem we face isn't pollution or consumption, it's population. If there is one thing the Expo made perfectly clear, it is that there are too many people in the world. Overcrowding and inadequate resources go hand in hand, and with fewer people, many of the world's other problems dissipate as well.
- 2. The Chinese like Chinese food. Many international pavilions offered great dining experiences with food from their native country, but the restaurants were almost empty. Instead, Chinese fast food outlets like KFC and Uncle Fast Food were constantly packed.
- 3. Our grandchildren will wonder what an incandescent light bulb is. LED lights were so pervasive throughout the Expo, and used in a variety of creative ways, it seems like the days of the good old light bulb are numbered.
- 4. Queue management is a skill not everyone understands. The entrances to the Expo are built to handle the 500,00+ visitors each day. They are massive, and they include lots of queue. But every day, even at the times when there was no line, the full queue was in use, forcing everyone to walk back and forth ad nausea just to get to the entrance. Once inside, many pavilions had drastically underestimated how much queue was needed. Additional lines were created, but instead of keeping the entrance in the same spot, the queue often began on the opposite side of the pavilion and sometimes hundreds of feet away from the pavilion, making it difficult to figure out which line went to which attraction.
- 5. The Chinese love a good story. And they won't put up with anything less than a good story. At pavilions where a storyline was weak, or the emphasis was on visual intrigue rather than a narrative, Chinese visitors would get up and leave en masse, even if it meant disrupting the environment for other guests.

The Art of Queue Jumping

When you think of the Chinese arts several examples may come to mind. The "Art of War" by Sun Tzu, written in the 6th century BC. The "Three Perfections" a combination of harmonious calligraphy, painting and poetry found in beautiful Chinese scroll paintings. The "Peking Opera" a two hundred year old theatrical tradition that combines music, performance, dance and acrobatics.

A lesser known but no less highly evolved art is the "Art of Queue Jumping."

The Chinese norms of what's "right" or "wrong" for queue line etiquette are, of course, uniquely Chinese. Special events in China, like the Expo 2010 Shanghai, can attract enormous crowds in orders of magnitude greater than what you might see elsewhere.

Wait times for some of the pavilions are three to four hours long or even longer! On a good day, without any creativity in the art of queue jumping, you might see only three pavilions after braving ten or so hours in line!

What would you do if a third of your visit was spent waiting in line for one pavilion?

You might get a little creative with your "queue minimization" as well. Here are some of the best and most humorous "queue jumping" techniques we witnessed at the Expo. Many surprised us for their unique combination of audacity and creativity. And more seriously, this offers a look at how, in order to serve international clients, designers need to understand and design for their audiences to ensure the best guest experience possible.

NOTE – We know you would never indulge in these antics. However, for the purpose of this article, we are going to assume you are the visitor. Hence the employment of "you" in the examples.

Jumping the Kid – The technique uses your kid as an "advance man". How it works: Your small child "accidentally" wanders away, snaking his/her way through the queue advancing just far enough so that you can see him/her. You begin yelling at your child, "you're a very bad boy or girl." As you yell, your entire family pushes its way through the queue line to retrieve the child, inserting yourselves as far forward as possible. Once you reach the child, repeat.

Constant Walking – Using this technique, you move forward, as if oblivious to the other

people around you in line. How it works: Walk through the queue line at a steady and quick pace, even if the line has stopped. This constant movement is similar to the way Chinese street traffic moves in a constant flow of energy, vehicles and people. In the same way, the people in the queue line naturally want to flow and not stop. If someone confronts you, act oblivious and continue walking at pace, making little to no eye contact, and advance your way through the queue.

Screaming Old Man – The technique is used by elderly men and women to advance to the front of the line, so if you're older than 75 listen up! How it works: Go to the front of the pavilion queue or the pavilion exit and begin yelling. As the staff and supervisors gather, crank up the volume and begin waving your arms like you're trying to flag down a passing jetliner. This instantly creates a commotion in the queue line. In order to maintain order and as a sign of respect, the younger staff members or supervisors will usually reward you by letting you enter the pavilion with no further wait.

Bump and Jump – This technique uses your rolling luggage to create a distracting decoy. (Note: You can also use your umbrella, handbag or body to create the same effect.) How it works: Go to the expo with a small rolling luggage bag. As you enter the gueue line, shift your luggage bag in front of you, not behind. As the queue begins to move, use the luggage bag to constantly push into the heels of the person in front of you. Be patient and use constant pressure. Continue this action until the person in front of you gets annoyed and allows you to advance in the queue. If the person in front of you gets angry, shift immediately to the Constant Walking technique and advance in the queue anyway.

I Didn't Know This Was a Line – To use this technique, go to the very front of the line, wait and just insert yourself into the flow of people. How it works: Find your way to the very front of the queue, right near the entrance to the pavilion. As people start to flow into the pavilion, you merge with the flow of people gaining immediate access with very little to no wait time. If someone confronts you say, "Oh, I didn't know this was a line." An obvious lie but, naturally, no one wants to create confrontation so they let it go. (This technique can also be used at taxi queue lines in Shanghai.)

Passport Exit Jumper – First, you need to understand what an Expo Passport is. The Expo Passport looks and feels like a real passport and comes in several colors. The goal is for you to collect "passport stamps" for every pavilion at

the World Expo. The Expo Passport is incredibly popular! The Expo is now selling insert pages and additional Expo Passport goals are being developed. It is the number one selling item at the Expo and everyone is doing it. So get ready to collect as many "passport stamps" as possible in a day! How it works: Here you use your "passport stamp" as an excuse to gain entry to the pavilions will just let enter through the exit to get the "passport stamp." Once in the pavilion, you can experience the pavilion in reverse order. Another variation of the Exit Jumper technique is to use the restaurant or shop as an excuse to enter via the exit.

Lift and Insert – Another very popular technique is to lift or crawl through the queue line barrier to gain an advanced position in line. How it works: Find an area of the queue where there is no guide. Lift or crawl through the queue line barrier inserting yourself directly into the queue. You can even do this with your entire family and group! Your chances for success are quite high, as many people in line will say very little or nothing and let it go to avoid a confrontation. If a guide catches then they you may have to leave the line, but this is quite rare.

Design Tips

The best queue lines at the Expo 2010 Shanghai are designed with an enclosed (solid) queue line structure. The pavilion entrance should be protected. They should not be immediately accessible from a main plaza. The queue itself should be a narrow single file line for control. A single person width discourages many of the queue jumping techniques above.

Other design techniques that help include providing a well-shaded and comfortable queue area, designing in separate entrance lanes and seating areas for visitors with special needs, elderly and parents with small children and providing entertainment (music, media, interactive games, performances, etc...) for those waiting in line. With the enormous crowds, there is a higher rate of wear and tear on all surfaces. Make sure that all queue areas are built with very robust and durable materials. Also, provide large recycling cans throughout the queue line, if you don't the trash will pile up!

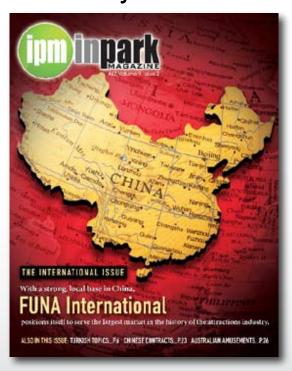
A combination of these techniques will help your attraction in China maintain order and provide a quality show experience for everyone. So be creative!!

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congratulates InPark's
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Visit with FUNA's Brian Paiva and Scott Arnold during the IAAPA 2014 Expo

92 seconds on skull island

king kong 360 3d at universal draws applause by Judith Rubin

Fire on the Universal Studios Hollywood back lot in spring 2008 wiped out several movie sets, damaged the famous "Back to the Future" clock tower and destroyed the popular King Kong tram-tour attraction from the 1980s. It was decided to update the popular attraction by replacing it with "King Kong 360 3D"-an immersive, multimedia experience that opened July 1, 2010 and features a gigantic 3D projection system, with two screens 187 feet wide by 40 feet high within a football-field sized soundstage.

Passengers have their breath taken away in stereo when the tram pulls into Skull Island and they are engulfed by the Peter Jackson-directed battle of Kong and the dinosaurs. It rages for 92 seconds of consummate wraparound 3D imagery produced and animated by Weta Digital, Jackson's New Zealand based company recognized with five Academy Awards for digital effects, most recently for Avatar. On Feb 1, King Kong 360 3D was honored with a VES Award from the Visual Effects Society, for Outstanding Visual Effects in a Special Venue Project.

Capacity is 160 seats per tram, with the show repeating over the course of the 10-16 hour Universal Studios day. The vehicle pitches, heaves and rolls as the beasts roar, punch, leap and lunge their way through battle in the jungle landscape. The show doors open and the tram emerges, its applauding passengers only a little worse for wear – slightly sprayed with Kongspittle. Tram ridership is up. Kong is back.

The facts according to Universal:

•King Kong 360 3-D features the world's largest 3-D projection installation ever produced.

- •Two seamless, compound curved screens, each measuring a massive 187 feet wide by 40 feet high the equivalent of 16 movie theatre screens surround the Studio Tour tram.
- •If the digital 3-D King Kong could leap off the screen, he would be astoundingly large: 30 feet tall, 20 feet wide, 15 feet deep and 6,000 pounds heavy.
- •Whereas the average film projects at 24 frames per second, King Kong 360 3-D's 16 ultra-high definition projectors display 60 frames per second, creating an incredibly fluid sense of reality.
- •Guests will see and experience the equivalent amount of media - one terabyte of information - that is usually rendered for one hour of a feature film.

Technical A-Team

Design, installation and control of sound and video systems were in the charge of Paul Cuoco, Technical Manager - AV & Lighting for Universal. His team within Universal included Senior Technical Manager Brian McQuillian and Technical Coordinator Drew MacDonald. Universal's Technical Director Bill Whitcomb oversaw design, integration and control of the show action equipment. Among those Whitcomb worked closely with were Universal's Greg Bryant (ride system specialist) and David Lundberg (Technical Manager – Controls).

Other members of the in-house team at Universal steering the project included Thierry Coup (SVP, Creative Studio), Jen Sauer (Creative Director), Mark Rhodes (Director of Media Production), Valerie Johnson-Redrow (Show Producer), Brian McQuillian (Sr. AV Engineer),

Daryl Parker (Technical Manager - Special Effects), John Dunne (Technical Manager - Set/Scenic), Greg Burnett (Facility Design Manager), Rae-Mi LeRoy (Project Coordinator), Drew MacDonald (Technical Coordinator).

Noted Universal Creative VP Chip Largman, "The Weta Digital team including Peter Jackson and Matt Aitken, along with Sassoon Film Design and Park Road Post, not only created a great new King Kong 3D movie, they also played a significant role in the technical process and brought considerable expertise to the job." The technical specialists interacted with Universal's facility design team and the Weta content production team. 3D special venue cinema specialist Peter Anderson ASC provided input on system design as well as content design in the role of Stereoscopic Specialist/Projection Design Consultant. Additional outside providers included Creative Technology Consulting (Ben Sheldon, working closely with Whitcomb), engineering consultant Jason Taylor, Leff Brain Consulting (project manager Steve Leff), Electrosonic Systems Inc. (projection systems) Pro Sound (audio system design & installation) LA ProPoint (screen fabrication & install) Visual Terrain (lighting design & programming), AET (special effects) and Visible Sound (Peter Lehman, on-site mixer).

Paul Cuoco and the AV team

3D presentation is always challenging in terms of illumination, and this was a unique situation not only in terms of off-axis sightlines but also screen size and cross-reflection. Several CAD constructions in 3D were produced. "We came up with what we called the French Curve screen to deliver an acceptable amount of light to guests' eyes and keep falloff to a minimum, ensuring that the projected world appears uniformly lit no matter where you are sitting on the tram," Cuoco said.

uillian (S

Electrosonic's project manager Linda Danet said, "Originally, the attraction wasn't planned as 3D – and I first thought the suggestion of 3D was a joke. Honestly, this hadn't been done before."

"The creatives didn't want to ever see the edges of the screen," said Cuoco, "so we had to make them as tall as possible given the throw constraints." In order to achieve enough height with the 16 Christie projectors, edge blended across the screen, they used anamorphic adapters, deployed vertically along the lens to stretch the image taller.

Cuocodescribed the content as "uncompressed RGB frames running at 60 frames per second," which some readers will recognize as the signature frame rate of a promising but ultimately unsuccessful special venue cinema format, Showscan, with which Douglas Trumbull was closely concerned – and Cuoco reported having recently given Trumbull a backstage tour of the show.

We asked Cuoco to parse Universal's statement that "guests see and experience an amount of media equivalent to one hour of a feature film." He pulled out his calculator and responded, "The show is roughly 90 seconds. Take each of the servers – 16 servers each running a 90 second show at 60 fps and compare to an equivalent 24 fps show. That's 86,400 frames, which comes to about 60 minutes' worth of 24P content in 90 seconds. So yes, they had to produce an hour's worth of CG in order to develop this show: 30 minutes per eye."

The entire projection system was mocked up to scale and tested extensively in the former Spruce Goose hangar at Playa Vista Studios. A Medialon control system monitors all the AV equipment.

"The fullsize mockup at Playa Vista Studios was up almost a year," recounted Mark Riddlesperger, founder and president of LA ProPoint, "and they played around with that mockup to finalize the geometry of the screen, do projection studies and sightline studies from the tram, and basically look at all aspects of what the show was going to be."

"It's a complex toroidal shape, which curves in 2 directions and makes you wish you paid more attention in geometry class," says LA ProPoint project manager Andy Hanlen. "There was a lot of handwork, and a lot of trial and error and headscratching. "Universal built something that has never been built before." The screen was plaster-finished and finished off with Screen Goo.

Sound, show action & lighting

A system of line arrays was deployed to create the sound field. There are additional speakers embedded into the tram bridge walls to allow for near-field effects like gravel. Two subwoofers per side supply substantial bass. "Since we couldn't have a perforated screen," noted Cuoco, "we couldn't hide speakers behind it at guests' ear height." Sound design was provided by Park Road Post.

The pneumatic Kong motion base and automatic show doors were built to Universal's specs by The Attraction Services Company (TASC). 10,000 gallons' worth of air is pumped in and out for each show cycle. For sound isolation, the pressurized pump and exhaust lines are buried underground and there is a system of solid steel plates on top of the entire motion base, combined with a thick rubber skirt.

The lighting uses mostly ETC fixtures, provides a variety of environmental enhancements to make the experience more convincing and

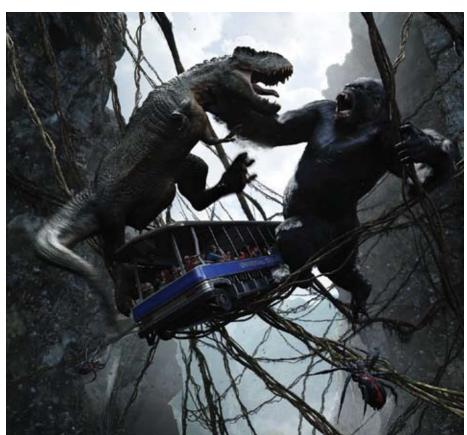
immersive, such as when the tram seems to be swinging from vines. "In an attraction of this kind, the projector is the brightest light source in room. We work to complement that but not compete with it," said Lisa Passamonte Green of Visual Terrain.

Ordinary equipment in an extraordinary configuration

"One of the things that really amazed me," observed Electrosonic's Pete Tinari, "is what Universal created from very simple elements by thinking differently about those elements. Nothing like Kong has ever been done before, and even though the project is cutting edge, the technology it is based on is not - and it has brought us to a new place."

"There were a lot of interesting logistics," remarked Dale Mason, Universal's Vice President of Creative Design. "We were very concerned at the beginning whether there was going to be enough time in 92 seconds to tell the story. We got so much more than we thought we were going to get. It feels immersive and complete."

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11

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east-west voices

revelations from Asian-American themed entertainment creatives by Judith Rubin

ow is the attractions industry being reinvented as the Asian market continues to flourish? What are the important cultural signposts? IPM co-editor Judith Rubin spoke to Sywa Sung, a designer and Harriet Cheng, a project manager. Their observations are as enriching as their cross-cultural backgrounds and experience.

SYWA SUNG

"Westerners need to try as hard as they can to not think like Westerners, and inhabit the minds of the people in the countries they are thinking of establishing projects in, or working with."



Sywa Sung (www.sywa. net) is a freelance art director, conceptual designer & illustrator recently contracted to Walt Disney Imagineering. He has provided design services to numerous leading design companies in the attractions and film

industries, including Pixar Animation Studios, Jack Rouse Associates, The Hettema Group, Thinkwell Group and BRC Imagination Arts. He has guest lectured on design and culture to the USC Annenberg Getty Award Fellowship.

You're an Asian-Canadian, the child of immigrant parents. You're based in Los Angeles but you grew up in Canada. What languages do you speak?

English, French, and a little Italian. I spoke Cantonese fluently as a child, but lost most of it when I started school. I am left with basic oral comprehension and enough spoken Cantonese to order food at a restaurant. My father is from Hong Kong and my mother is from the Canton region around Hong Kong. As a born and bred native of Montreal, I do not consider myself the ultimate expert on the intricacies of Asian perceptions, but I do have some insight given my upbringing. Foreigners like myself probably have a unique insight into American culture as outsiders looking in. We are probably more objective -- like the Bob Hope phenomenon.

The Bob Hope phenomenon?

Bob Hope - in that he was foreign born (UK) yet became an American cultural icon. As more contemporary examples, Shania Twain and Celine Dion have also become American music icons - yet are Canadians whose work becomes the culture. There was a kind of parallel vibe

for me when I was working as the attraction art director relating to Batman for the Warner Bros. Abu Dhabi project. For me - a Canadian – getting to work with and interpret a globally synonymous American icon for a foreign audience was a thrill.

Growing up, were you encouraged to assimilate - to leave off speaking Cantonese?

Not at all. Integration and high functioning were the goals. To let go of one's original roots was not the intention. Canada is sometimes described as a "salad" as opposed to America's "melting pot." I have found that nothing really melts together in reality. I will never be able to walk into a room and not have people think of my ethnicity. Sometimes I am reminded of that fact in rather jarring ways.

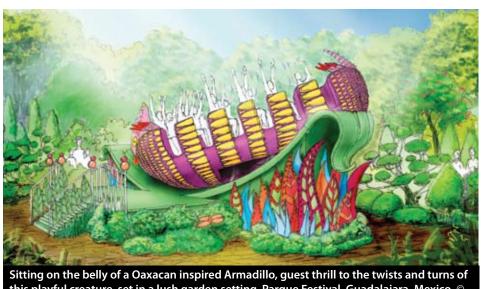
Do people expect you to be an instant expert on all things Oriental?

Yes! But I am of both worlds, so I can interpret for each side. That's the unique space I think I occupy. And being Canadian plays a big part of it too. Canada is multi-cultural, and that is celebrated.

What are some things your "outsider" viewpoint helps alert you to in your work?

I am always aware of how American culture may or may not be perceived by non-Americans. Americans frequently take it for granted that everyone loves everything from America, and for the same reasons. That's not always the case in either respect.

There is sometimes the assumption that people abroad will automatically love an American intellectual property (IP). But not every IP is going to have American qualities that appeal internationally. Here's an example from when I worked at Sony Development [in the 1990s]. One of the attractions created and brought to Japan was "Where The Wild Things Are" based on Maurice Sendak's beloved American children's book. It was beautifully done and true to the book [the attraction first appeared at the original Sony Metreon in San Francisco]. "Wild Things"



Sitting on the belly of a Oaxacan inspired Armadillo, guest thrill to the twists and turns of this playful creature, set in a lush garden setting. Parque Festival, Guadalajara, Mexico. © MSI Design



A dramatic and humorous Pirates live stage show concept incorporating an exciting blend of acrobatics, death defying high dives, and sword fighting, developed for Hong Kong's Ocean Park's Summer Splash. © IvanXTeam S.r.l. 2011

being American and popular in America led to some assumptions that the Japanese would also love it. It ended up not working there.

In my personal opinion and observation, what was not realized is that Mickey Mouse and other such characters fit within the "cute" and rounded aesthetic that Japanese love, which is already in their culture. The Wild Things, on the other hand, are visually rough-hewn characters with a lot of grit and sharp teeth. That is not to the Japanese taste, so they appeared ugly and scary to them. The mother's behavior is also different from Asian parenting - a traditional Asian parent would never allow Max to leave the dinner table without eating first. Max's behavior as a child is very disobedient, which would be considered shameful and embarrassing of the mother, and Max's behavior unacceptable.

To export concepts or stories to other countries and cultures without doing detailed homework can be a costly mistake.

What do Westerners need to pay attention to as the industry grows in Asia?

Westerners need to try as hard as they can to not think like Westerners, and to inhabit the minds of the people in the countries they are thinking of establishing projects in, or working with. Being a good housequest, as it were. It is their country, and we are only invited guests. We shouldn't go in and start rearranging their furniture or telling them how things would be better if they did things our way. You wouldn't be welcome very long doing that. Eat their food, seek it out, and learn to like it.

When it comes to conceiving attractions, how does one follow the practice of being a good houseguest, so to speak?

We need to listen to their wants and desires, and not to impose our own tastes on them. If they love Bollywood, but don't care that much about superheroes, give them Bollywood attractions and don't force superheroes on them. Being a good designer is being able to inhabit your client's mind, and bring out what they want. All too often, their tastes are not taken seriously enough. They are paying us to provide them what they want, not what we want.

What should Westerners be paying attention to culturally, in that regard?

In the Middle East, and India, we need to pay much closer attention to what Bollywood has going on, and to gain an appreciation for it. Anime in animation and comics must also be taken much more seriously. It is a huge cultural influence in Asia - yet it is considered an exotic side dish here, when in fact it should be influencing attraction design. There is more love

and brand awareness of many Anime titles in Asia than for many beloved American IP's there. We also need to appreciate that Anime storytelling is distinctive. They mix genres much more than we do. You can have a drama-comedy-vampire-love story all in one.

I have seen American Caucasian Anime fans singing Anime karaoke word-for-word in Japanese. Do they know how to speak Japanese? Probably not.

Of course American films are popular and have great reach globally. Disney is obviously a huge influence on the industry. As a generator of IP, it is the gold standard. But one walk around Anime Expo or the show floor at Comic-Con - or a browse through the Bollywood video section of an Indian video store - reveals the huge potential of many other sources - many of which, I must reiterate, are more popular abroad than American IP's. The industry needs to be more aware of this. If not, other design firms in other countries will outmaneuver us here.

If we want to be relevant, and continue to push the edge, we need to dare to learn more, and more importantly, understand other people and cultures. We live in a global economy, and soon a global culture, whether people are prepared or not. We need to think 10-25 years ahead.

1

HARRIET CHENG

"In America, we believe that 'Story is King.' But when you partner with a different culture, the willingness to execute that vision is not always there."



Harriet Cheng is currently project manager for IWitness at the USC Shoah Foundation *Institute and producer/project* Manager at Playground Digital Technologies. She previously worked as project coordinator, Shanahai Disneyland at Walt Disney

Imagineering Creative Entertainment. She is firstgeneration Chinese-American, grew up in the US and is fluent in Cantonese and English.

Tell us about your current projects.

With Playground Digital Technologies, I am creating exhibits for the National Museum for the United States Army, a new museum opening in 2015 in Fort Belvoir, Virginia. For the USC Shoah Foundation, I'm creating content for and managing the development of an educational website using materials from the collection. The online education field is exploding right now. That is why I am there - I try to stay ahead of the curve.

How does project management or coordination in the East differ from what the industry's used to in the West?

I think the biggest difference is the balance between project management (money) and the creative. The Chinese don't inherently believe that better creative leads to better experiences, and thus, one should not spend money on it - unlike the Japanese, where the experience is paramount and they spend for it!

That's a huge difference from the storytelling emphasis of the industry in the US and Europe. Here in America, we do believe that "Story is King." Certainly, that is the case with Disney.

But when you partner with a different culture, the willingness to execute that vision is not always there. With the Japanese, they believed it - Universal Studios Japan and Tokyo Disney Sea are both winner parks. Whereas the Chinese close down parks every day because most of them are thrill ride parks that contain no magic or wonder for kids to love.

Then a stronger story core is needed to earn repeat business?

Well, that's what we in the West believe. Look at Harry Potter. It blew the doors off Universal's numbers because the story is so loved. I believe that the Chinese are really a very practical culture. They don't have a lot of cultural belief in the magic of childhood, the gifts of imagination, and having fun. It is a culture built upon hard work and survival, not daydreaming.

Do you think the growth of the middle class will promote more 'daydreaming'?

The middle class do not feel very secure in China, or America, either, for that matter. So, in China, where the culture dictates that you save money and don't spend on idle things, I'm not sure that the parks will get repeat business. For example, Hong Kong Disney depends mostly on tourists, not the local population. Contrast that to Disneyland, where the majority of their business is local customers.

In America, you can become anything. You can start as an "Okie from Muskogee" and turn into Brad Pitt or Carrie Underwood. That is unheard

of and undo-able in China. There are far fewer dreamers. When was the last time we had a Chinese performer, or character, or property have that kind of success here? Jackie Chan? No one is making theme parks out of him.

Can you give an example of a Chinese theme park that is achieving a higher standard?

One such park is Happy Valley in Shenzhen. It is an OCT park. The OCT chain spends money on items with no inherent ROI, like landscaping and theming. In America, we talk about "experience" which to us, includes all those intangibles. But the Chinese say, "the grass is not a ride, no one pays to see grass."

You don't go to a theme park to bootstrap, though. A theme park visit is an escape from daily life.

And there is the crux of the culture clash. Escape? The practical, Chinese attitude is, "Your life is what it is. We can go to this park for a fun time today, but don't ever believe this is real life."

The Chinese don't promote creativity, and in theme park development, there's much cost cutting. It can be frustrating. As in any business, if you just tell the production teams what the real budget is at first, then they can design to that; not design to something that was never there. Then you get death by a thousand paper cuts.

Then, if allowed to, Western optimism and the concept of the guest experience may greatly benefit theme park development in China?

When society encourages you to be anything you want to be, the creativity is huge. •••



Thrilling gladiatorial sword play, pageantry, horse tricks, fire effects, humor, and drama are interwoven into an epic live stunt show in an epic Roman Coliseum set. Project in Vietnam. © Steelman Partners

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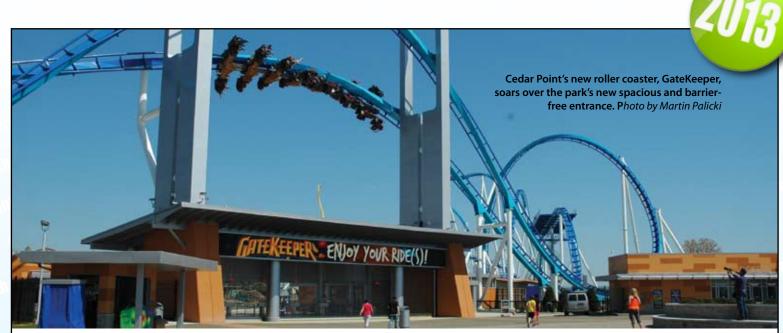
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tickets to ride

the technology supporting the ticketing and admissions process is having a dramatic impact on park architecture and planning

by Martin Palicki

Approaching the entrance to Cedar Point, guests' eyes are drawn to the new \$25 million dollar coaster flying over the front gate every few minutes. They might not even notice the brand new entry plaza, or the sleek ticketing building tucked off to the side. Interestingly named The GateKeeper, the ride actually gave the park the opportunity to open up the front gate area, allowing guests more freedom and mobility. The very architecture of the park's entrance has changed, thanks in large part to advancing ticketing technology and evolving quest trends.

"Every year the amount of people buying tickets at home jumps a large amount," says Matt Ouimet, President and CEO of Cedar Fair. "We want to make it easy for our guests to come here, and let them have fun."

Purchasing a ticket is usually the first interaction a guest has with a park, and it's something that leaders like Ouimet don't take for granted:

"The first thing guests see at most regional parks around the world are ticket booths that are well beyond their years and certainly a design feature and utility that are no longer necessary.

"If you bought a hotel room in Hawaii on the internet, and you got to the lobby you either said, 'I made a great purchase' or 'What did I do?' – The front gate is our hotel lobby."

It's not just Cedar Point. Other players like Six Flags and Disney are re-designing their entrances, and often with the help of leaders in the ticketing industry.



"Ultimately, what's happening is customers are still presenting a ticket; that concept hasn't changed a whole lot," says David Goldman, President at Ideal Software Systems. "But it's a much more efficient process now."

The First Tickets

Depending on whom you talk to, the field of modern ticketing had its origins in any number of industries like concerts, skiing or sporting. But Dave Hutton, Vice President of Marketing for Diamond Ticketing, has what seems the most credible theory:

"Ticketing probably was developed in the early days of rail and boat passage, where there were large groups of people that were traveling at the same time. Those that were running the services needed a way to have access control. That's where we started keeping track of people and wanting to know numbers. It advanced significantly in performance theater, with Broadway developing new ways to track and identify ticketholders. That's what informs our ticketing procedures today."

Up until the 2000's nearly every guest to an amusement park or theme park purchased their ticket at the park's entrance. Then, print-at-home tickets arrived on the scene and guests gained the option to show up with their printed ticket and have it either exchanged for a new ticket at the gate, or scanned for entry. Even that process is starting to become a bit passé, with the increasing use of mobile devices to allow entry.

The core function is that of presenting a scannable code, and that hasn't changed in a while, although it has become more complex.

"Scanning systems have evolved from regular barcodes to 2D barcodes (for use on mobile devices) to QR codes, which have the capacity to store more information than just a serial number," explains Melinda Arvin, Director of Sales and Marketing for OmniTicket Network.

Making phones smarter

Clearly the trend is to use the mobile technology already in guests' hands to enhance the ticketing and entry process. But relying on smartphones has a few drawbacks.

"For starters, not everyone has a smartphone," says Siriusware's President and CEO Mark Danemann. Additionally, the variety of operating systems ensures there is no one-sizefits-all solution. "Nonetheless, this is a bridge moment. As phones start to be used as a form of payment, then they will start to transform the ticketing procedure."

Steve Brown, Accesso's Chief Operating Officer, North America, agrees. "Right now what mobile devices provide is a readable image, but as devices continue to develop we expect them to include near field communication."

Near field communication technology is based on RFID (Radio Frequency IDentification) chips that emit an identifiable frequency that readers are able to read and track. Although not necessarily new technology, it is being utilized in new ways and currently being rolled out at all of the Walt Disney World Resort's parks as part of their new MyMagic+ program.

Only a few devices have that technology now, but that is expected to expand. How quickly it rolls out will largely depend on phone service providers as well as banks and merchants partnering together to provide all the pieces. Perhaps not surprisingly, Asia is first, Europe second and the US is third for mobile technology adoption. In Asia and in London people are already paying for taxis using near field communication on their mobile devices.

Near field is still in testing at Walt Disney World; the goal is to replace paper tickets with RFID wristbands that function as hotel room key, park ticket, ride reservation system, and more. Disney also touts the system's ability to create customized experiences for guests, with ride control systems able to read data from the wristbands and display a Happy Birthday message to a birthday child during a ride, for

> example. Initial results from Disney indicate the wristbands have increased per cap spending.

OmniTicket Network developed the system in Florida, and while Melinda Arvin is quick to point out all the benefits the system provides, she also cautions parks from jumping too quickly onto the RFID trend.

"The concept of making experiences more interactive – and creating more guest engagement throughout experience – is certainly a big selling point of the technology, but RFID is not an option for most smaller venues," says Arvin. "The cost for RFID is still high, and most of what is being done with RFID can be replicated using less expensive technology. As expected, Disney is at the leading edge, and now others will start to adapt and follow their lead."

Actually, waterparks have been a prime playground for developing ticketing technology. With wallets and waterslides not mixing well, waterparks have sought out ways to pre-load money onto wristbands that guests can use as cash throughout the park. While that can be accomplished with barcoded wristbands and networked scanners, some parks like Waterworld in Colorado have started selling RFID wristbands for that purpose, with the price of the wristband helping offset the cost of the technology. At Dorney Park, Cedar Fair is running its own experiment of offering the RFID wristbands not only at the waterpark but for the adjoining theme park as well.

The New Architecture

As an effect of the changes in technology, a number of park operators have taken the opportunity to re-think and re-design the front gate experience, as Cedar Point has. Budgeting for these projects can be challenging, however.

"We tried for years to come up with a rationale for investing in the front gate," says Matt Ouimet. "Every time we wanted to, we decided to spend those dollars on a ride instead."

Rob Decker, VP of Planning and Design for Cedar Fair, said he was looking at ways to redo the front gate since he started at the company in 1999.

"When the wing coaster came along I realized that was the opportunity," says Decker. "I met with Walter Bolliger [of Bolliger & Mabillard] and said, 'I've always wanted to fly over the front gate,' and within five minutes the idea was born."

From a design and architectural standpoint, the redevelopment of the front gate had as much to do with the park's identity as it did with the coaster.

"For us, not having theme-heavy IP, we have to create our own identity. If we are going to be known as the roller coaster capital of the world, then we put a roller coaster at the front gate," says Decker. "Furthermore, it should be about giving the space back to guests. We tend to shoehorn things into limited space, but now we are thinking more about the placemaking the sense of place - and making the day better for the guest with less hassle. So we think about those things from an architectural and planning





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10th anniversal innark magazine standpoint to make sure we deliver not just the thrills but have it be a pleasant place to enjoy the day."

It's the advances in technology that are allowing those conversations and design shifts to take place. Guests at Cedar Point find an open plaza at the front gate. Tickets are still sold in a low profile building to the side of the entrance, and directly below GateKeeper, the row of old fashioned turnstiles has been replaced with barrier-free access points. Employees scan tickets, while newly installed cameras count guests as they come in and out of the park.

Although Cedar Point has hard wired scanners, mobile ticket readers could also be used, allowing virtually anywhere to become an access point quickly and easily.

Matt Ouimet calls it "the beginning of the death of the turnstile."

Diamond Ticketing's Dave Hutton thinks "most major parks will be turnstile-free in about 15 years as technology becomes more affordable."

But Steve Bell, Business Solutions Architect for Gateway Ticketing Systems, does not see turnstiles approaching their end of life. "The attraction space can experience significant loss without the utility of rigid control," says Bell. "With key customer locations handling 40,000 ticketed guests per hour, even a 10% loss for our customers can translate to unimaginable and unacceptable revenue sacrifice."

OmniTicket Network's Melinda Arvin says it's the start of "transforming access control." Where feasible, she indicates, facilities are moving towards barrier free access. But at the same time, Omniticket has sold more turnstiles this year than in years past.

The Future

How can one tell where this technology is headed for parks? One way to find out is to look at corollary industries.

Siriusware's Mark Danemann looks to his company's work in the ski industry and a practice they call "direct to lift." Skiers receive a card, either RFID or barcoded, that they can load a lift ticket onto online or at the resort at a discount and go straight to the lift. It's sort of a middle ground between a single admission and a season pass. It increases the park's yield, but also depends on the price point. It starts to make more sense when ticket prices approach the \$100 mark.



Cedar Point's main entrance, shown here just prior to opening, features a barrier-free entry and attendant-monitored ticket scanners.

"Getting that card into the customer's hands is key," says Danemann. "Then you can start tracking and analyzing their spending habits, while building loyalty."

Danemann also sees dynamic pricing as a hot topic that has yet to solidly establish itself in the attractions industry. With the majority of tickets being purchased electronically, the actual price of admission could change based on how busy an attraction is. "Does it play out in the real world?" wonders Danemann. " I'm not sure whether a \$1-5 change in ticket price will drive people from one attraction to another."

"The technology and GateKeeper allowed us to do great placemaking with our entry gate," says Ouimet. "The [open] entry plaza allows for the drama of the ride to take center stage." • • •

In the meantime, parks will continue to watch

how the front gate experience is changing at

parks like Walt Disney World and Cedar Point

and adapt their own architecture to meet the

Dave Hutton sees an all-in-one ticket coming soon. "Patrons can purchase their whole experience from home. It will be similar to how vacations are bundled together, or a cruise ship, with everything on one card."

John Collins, Strategic Sales Executive with Active Network also seesfurtherintegration of biometrics with other technology on the market. "Using devices like Microsoft Kinect could allow to establish identification metrics based on height or other identifiable features of guests," says Collins. "Right now, the ROI doesn't make sense, but the future is there."

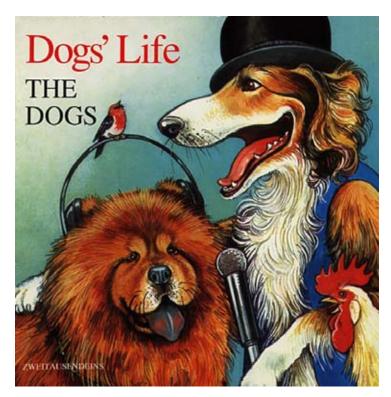
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Best wishes,

Lisa Passamonte Green David Green and your friends at Visual Terrain Dragons Wild Shooting * Lotte World, South Korea * Photo by Dongwook Jook

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Sailling the Wings of Time

by Martin Palicki

There's a scene in *Wings of Time* where the show's starring bird appears on a giant water screen and appears to fly off into the distance. It is convincingly real. The ability to convey depth on an oftentimes-challenging water screen surface is one of many treats showcased in ECA2's latest outdoor production on Sentosa Island.

Called in by Sentosa to redevelop their Thea Award honored show *Songs of the Sea*, ECA2 built on the basic structure of the original show to create an entirely new production, taking advantage of the latest in show technology.

"Songs of the Sea ran for seven years and had over eight million visitors," explained ECA2 CEO Jean-Christophe Canizares. "Sentosa didn't want the show to become dated. It was time to refresh the offering."

To create bigger and better effects, *Wings of Time* combines existing technologies in brand new ways. All the effects used already existed (many in ECA2 productions), but for this new show they needed to become bigger, more surprising, more spectacular. And while projection has long been a part of the company's signature multimedia spectaculars, combined with a host of other effects such as pyrotechnics, water features, lasers, lighting, sound and flames, *Wings* would be the first time that video mapping came into the mix.

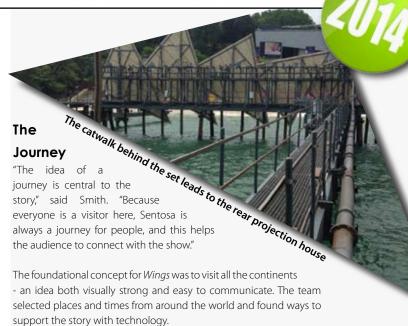
The Venue and Staging

Wings of Time plays two shows nightly on Sentosa Island, Singapore's playground, which is also home to a casino, multiple resorts, a Universal Studios park and a wide array of attractions and entertainment.

The 3,000-seat theater was built for *Songs* eight years ago. Sentosa wanted the venue to be inactive for as little time as possible between the two productions. And so, *Wings of Time* was installed in a record six weeks. The process involved completely dismantling the previous show, construction of the new stage, technical installation, programming, technical tests, operator training and rehearsals for local live performers.

The set was built on the original pier footings from the *Songs* stage, but everything from the catwalk flooring and up was replaced. The focal piece of the set is a series of slatted triangles overlapping one another. They provide the main projection surface.

The pre-show begins with actors on the beach meeting to rehearse a song. The pre-show helps the audience learn the theme music and introduces the show's two primary teenage characters. Two of the actors appear in projected form at the start of the main production. Show designer Moira Smith talked about the decision to use live actors only in the pre-show. "People were an important part of the story, but we didn't want there to be a different scale between the live actors and the screen," said Smith. "This also allowed us to create a show with limited dialog, minimizing language barriers."



As the story goes, the teenagers meet Shahbaz, a bird who, intrigued by their curiosity about the world, helps transport them through time and space. He takes them to visit his garden of origins, and to various times and locations in history, some more specifically referenced than others. The European industrial revolution is one of the more dramatic scenes in the show. Projection mapping on the triangular surfaces shows machines and gears developing, while rear-projected lasers slice through the surrounding mist in the shape of giant mechanical

"This show forced all of us to think outside of the box...literally," said Smith. With the multiple projection surfaces and image sources, the show allowed Smith to escape from the traditional frame and move ideas and imagery among different formats and screens.

presses, moving up and down with the beat of the music.

During an Asian-themed scene, flowing ribbons move off the triangle screens and travel (in laser form) up a nearly 40-meter fountain. The effect is seamless, and challenges what the viewer considers the "edges of the screen."

Occasionally, the show journeys into the audience arena as well. Water cannons explode on the beach, sprinkling nearby guests. Fireworks shoot off the structure into the sky, and lasers dance in patterns on the sand.

The show is driven by the effects and technology, but the strong beat of the music also pushes the production forward. ECA2 worked with Philippe Villar and Pascal Lengagne to create the show's musical soundtrack. The duo worked with composers and instruments from around the world to match the feeling and sounds of each of the regions visited.

The Technology

The imagery and the surrounding technology and effects are what drive the story forward. The 20-minute show's plot was designed to be enjoyed on different levels. Guests may just be amazed by the visuals without following the story. What makes that possible is an impressive



40 existing, stationary water jets from *Songs* were moved from the lower level catwalk behind the set to a new second story, increasing the height of the jets. Additionally, all the moving and stationary jets were outfitted with LED colored lighting, reducing lighting power consumption for the show by 25%.

Water screen

An existing, key feature of the *Songs* production was its main water screen, and this was retained for *Wings* but given a complete overhaul. Perched above the center of the set, the screen extends the projection space far out and above the set's main triangles. ECA2 rebuilt a new head for the water screen, creating a more focused and powerful water stream and thereby a better projection surface, with optimized clarity and crispness and more ability to retain those qualities even in windy conditions. Two new Christie Roadster S+20k rear projectors provide the power for the graphics, which are duplicated for image quality and redundancy.

Lasers

Equally dramatic is the usage of lasers in *Wings*. Four green lasers from the previous show were repurposed and four new color laser

projectors were added bringing a total of 88 watts of power (10 times more than previously).

Claude Lifante laser designed the show, and was given complete creative license. The lasers dramatically emulate sparks during the industrial revolution, and create geometric patterns that move from the triangle sets, to water jet sprays and to the beach in captivating, fluid movements. At times, it wasn't clear what was projected image and what was laser. The blending is seamless and the effects dramatic.

Show Control and Maintenance

Wings of Time uses a Medialon show control system to control the entire production. ECA2 created its own interface for local techs to operate. For the new production, all the controls were switched out to digital systems, and a redundant show control system was installed to enhance reliability.

As might be expected, one of the biggest challenges for a show of this type is dealing with the corrosive effects of seawater. According to Technical Director Jason Fischer, while misters on the set use fresh tap water, every other fountain and device uses filtered seawater, and the set is constantly bombarded by waves and mist from the sea. Luckily, ECA2 is skilled in this area, and has built up expertise from their work not only on *Songs* but from *The Big O Show* in South Korea. Their three-pronged approach to combat corrosion includes:

- **Routine maintenance** Technicians regularly clean and inspect the submerged and exposed elements of the show equipment.
- Equipment and materials selected and fabricated for tough conditions (such as stainless steel made for sea environments) The metal catwalk flooring, for example, was replaced with a resin grating that is more durable and less susceptible to corrosion. Similarly, the triangle set, although made to look like wood, is fabricated out of a resin resistant to sun and moisture decay.
- Lighting and equipment positioned and mounted in protected environments where possible – During the three weeks of programming the show, the programming equipment, set up front and center under tents on the beach, was ruined by the corrosion. It was expected and part of the cost of production,

but it
highlights
why new
buildings were
constructed to
house additional
projection and
lighting equipment in
an effort to protect the
sensitive electronics from
the elements.



Nature ultimately wins, and the show, which is expected to have a run of around five years, will likely be the last for the set and the underwater

structures that support it. Sentosa expects to eventually redevelop the area into a new attraction and create a new nighttime show elsewhere on the island when that time comes.

The Team

It's impossible to not want to compare Wings of Time with Songs of the Sea. And even after a very cursory comparison, one can tell that Wings is an evolution of Songs. Canizares admits that their shows evolve just as their company does, building on the past and reaching towards the future.

"Between producing these two shows, ECA2 worked on a dozen other performances that provided us more experience," explained Canizares. "Our model is to have as many in-house people work on a project as possible. We want the R&D value to remain with our company, so we choose to contract out positions as little as possible."

Contracting with other people can be a fast path, indicates Canizares, but can reduce long-term benefits. By having an in-house development team, ECA2 can show the client that the solutions required have been studied and developed by an established core of creative and technical professionals. "Our brains, ideas and flexibility are our biggest assets," he said. •••

MEET THE MASTER: Jean-Christophe Canizares, CEO of ECA2

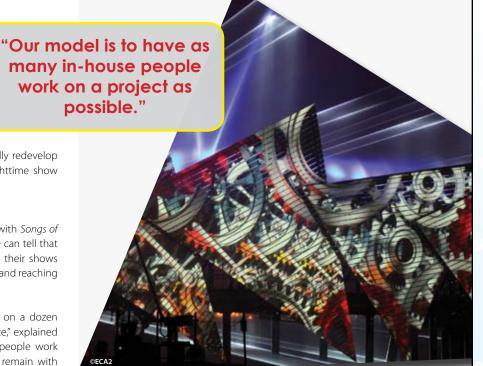
With 20+ years of experience in the company, Jean-Christophe Canizares leads a team that includes talents in the fields of creation, engineering, logistics, project management and production.



He was educated as an engineer and in his early career worked as technical manager for concerts and festivals, first collaborating with ECA2 in 1992 on the opening of Euro Disney. He joined the company full-time in 1994 and since that time has played a part in producing

and finally as CEO.





Key Technical Figures Main show structure

- A façade of 8 triangles and a diamond covered by timber lattice: 55m long, 12m high • Boardwalk: 50m long, 6m high from mean high sea level
- Mist installation
- 4 series of mist of 48m (one on the beach, 3 on the catwalk)

Water installation

- 10 robotic moving jets (6 x 20M high, 2 x 30M high, 2 x 40M
- 37 cannons (24 x 14M high, 12
- x 18M high, 1 x 40M high)
- 1 water screen (60m X 20m)
- 2 cascade effects 40m long

Geyser installation

• 5 airshoots, 20m high

Laser installation

- 2 15W ROGB
- 2 14W OGB
- 2 5W green
- 2 10W green

Video projection

- 6 Christie L2K1500 projectors for the triangles
- 2 Christie Roadster S+20K projectors for the water screen

Flame generators

• 6 units FG 25 with a flame height 7M

- 12 units FG 50 with a flame height 10M
- 1 unit FG 100 with a flame height 16M

Lighting installation

- 10 donut 96 LED for moving
- 114 RGBW 48 LED PAR for water effects
- 4 moving LED wash in Tempest
- 136 1000W submersible PAR
- 10 moving heads Mac 2000
- 6 moving heads Mac Viper
- 8 Source Four
- 32 PAR
- 18 halogens

Pyrotechnics installation

• 33 Firing Modules on catwalk

Other constraints

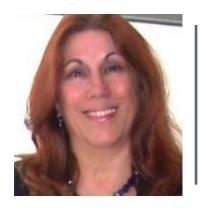
 Seawater requires all elements to be fabricated in high grade stainless steel. All steel fabricated items needed to be corrosion and sea salt resistant. Special show control under ECA2 with redundant control, touch screens, and feedback information from all show elements in real time.



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Intellectual Property Values

The industry speaks out on the evolution and future of IPs



Jan ShawWyldBlue
Entertainment



Jim KingWyldBlue
Entertainment

Adapting Intellectual Properties for the theme park industry is nothing new. From the first themed attraction at Disneyland in Anaheim, California, to Universal's "Transformers" ride, IPs remain a lucrative aspect of our Industry.

Key factors have driven the evolution of IPs over the years. As entertainment widens both globally and with new applications, opportunities for successful IP adaptations go beyond the traditional attraction rides. Non-traditional IP applications, such as resorts, live events and shows, mixed-use entertainment, immersive retail and seasonal guest engagement, have come to the forefront as a newly envisioned driving force in today's themed and leisure entertainment markets. Additionally, there are more sources for quality IPs beyond blockbuster films and children's properties.

How people consume media has changed dramatically in the past several years. As a result, how the industry views content and how consumers use content, worldwide, is evolving to meet demand. Guests, and their expectations, have become more sophisticated. Today's guest cares more about story and content. "The biggest evolution in the way we approach Licensed IP is a deep focus on integrating the IP seamlessly into the attraction," says Greg Lombardo, VP Global Live and Location-Based Entertainment, Twentieth Century Fox Consumer Products. "We pay a lot of attention to storytelling that expands and supports the worlds of our franchises."

Brands with true staying power over time are the most successful. "Consumers truly engage with characters they know and love, and want an experience that re-engages them with that emotion," says Senior Vice President Global Consumer Products, Sony Pictures Consumer Marketing, Greg Economos.

Thinking outside the attraction box

The growth of immersive and interactive retail, such as American Girl and Crayola, has fueled new opinions on how IP's can be applied by developers. "The key or absolute critical factor to developing a brand is one that delivers on the promise of the brand," says George Wade, President Bay Laurel Advisers, and former SVP MGM Studios Resort, Las Vegas. "Consumers are looking for richer and more immersive experiences relating to the brands." Dan Wilson, VP of Global Retail at Saban Brands, licensor of iconic IP brands, such as Power Rangers and Paul Frank, adds, "Consumers want and expect extended brand experiences. We are always identifying ways in which to deliver on this and stay ahead of the trend."

Positive results from non-traditional resort-based IP applications and branded guest engagements and seasonal programs, such as Cartoon Networks' Seasonal Guest Engagement at Atlantis Resort and Water Park, are a growth area for IP's as well. At WyldBlue we were recently engaged by a developer to explore the opportunities for applying licensed IP's to a 1,500 unit lateral hotel, a premium resort development that offers a combination of hotel, condo, townhouses and private home vacation rental accommodations with amenities and mixed-use entertainment. This family-focused, non-traditional

"The biggest evolution in the way we approach Licensed IP is a deep focus on integrating the IP seamlessly into the attraction. We pay a lot of attention to storytelling that expands and supports the worlds of our franchises."

Greg Lombardo, VP Global Live and Location-Based Entertainment,

Twentieth Century Fox Consumer Products.

format is a natural fit for an IP Master License. For the private equity client, this was not merely a marketing-driven consideration, but a profit-plus economic driver. New trends like these continue to change the landscape and expand the use of Intellectual Properties.

Touring exhibits and live stage shows also have seen explosive growth in the IP world. "Immersive experiences are the future of touring exhibitions with emphasis on universal brands or ideas," says Heidi Pinchal, Principal of Brand Image Group. "Guests want to be part of the IP, to experience it, not to just interact with it. Theme parks have known this for years."

The business side of IP

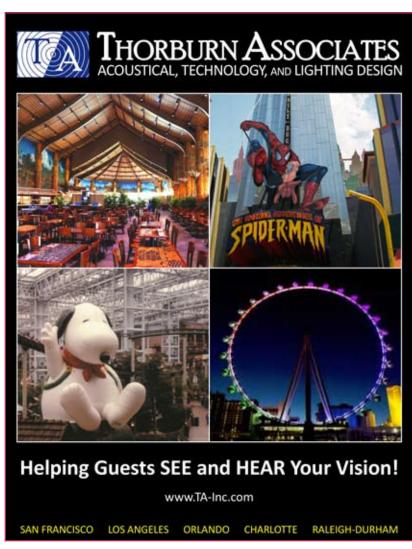
Understanding the business aspects of the IP licensing process, players and personalities have evolved, as well. Studios, networks and brands look at licensing IPs far more strategically than in the past. Commenting on Sony Pictures' future vision, Greg Economos says, "Global expansion is our big push. We recently announced a deal in Dubai and will be expanding our footprint with several of our IPs throughout the world."

Discovering which IP is a good fit for each project is only the beginning of the process. Licensors are vastly different, each with their own internal brand strategies and business styles. Understanding how licensed IPs work and the nuances of legalities, clearing and third party fees, makes all the difference in structuring quality IP licenses. Striking a balance between the cost, consumer awareness, value and profitability is the primary concern. A poorly structured deal can result in unexpected costs to the licensee that will negatively affect the cost to gain ratio. The devil is in the details when it comes to licensing any IP.

"Those who do not consider IPs in today's market are putting themselves at a competitive

disadvantage," says Paul Nunes, Esq., Intellectual Property Attorney, Partner, and Chair of the Intellectual Property Practice Group at Underberg & Kessler. "If you are not at least keeping pace with what others are doing, if not surpassing them, you are not in the game." •••

Jim King and Jan Shaw, Principals of WyldBlue Entertainment, veteran Master Planners, Creatives, Project Managers and Problem Solvers for the Entertainment industry, specialize in IP Adaptation. www.WyldBlueEnt.com





Cinematic experiences for all ages

Exploring Wanda's increasing role in the evolving Chinese themed entertainment landscape



Joe Kleiman InPark Magazine When Dalian Wanda Group announced the launch of 200 Wanda Kids Place children's "theme parks" in August of 2013, it was one small part in an overall company strategy to make the Wanda brand synonymous with out of home entertainment in China. The 200 centers, when complete, will make Wanda China's largest operator of commercial play centers targeting children eight years and younger.

On October 31 2014, the 100th Wanda Plaza opened in the city of Kunming. Wanda Plazas combine a high end shopping center, office and residential space, and upscale hotels all on prime downtown real estate. Most of the Wanda Plazas are anchored by a high end Wanda Cinema featuring an IMAX auditorium. With each Wanda Plaza that opens, Wanda Cinemas maintains its bearing as the world's largest cinema chain, following its 2012 acquisition of AMC Theatres in the United States.

Through sheer number of locations, quality of experience, and inclusion of upscale elements, Wanda plans to make its mark in China and abroad. In the works in the United States are a \$226 million investment in a Chicago waterfront tower slated to house residential and commercial units along with a luxury hotel and a \$1.2 billion investment in a Beverly Hills project, which will house the company's American entertainment production offices. In the UK, the \$1.1 billion Nine Oaks will bring yet another luxury hotel, housing, and retail, to an area slated to house the US Embassy. In Australia, \$900 million will be invested in a hotel which will anchor Wanda's Jewel project on the Gold Coast.

In China, Wanda is concentrating on cultural tourism. The term, as often used in China, refers less often to the traditional defintion of tourism to locations of historical cultural significance, and more significantly to tourist destinations. One such cultural tourism location is Wuhan, the most populous city in central China. As part of its effort to reinvigorate the city center, Wanda built two new attractions, both opening in December, 2014.

The first is The Han Show, created by Franco Dragone with set and building architecture by the late Mark Fisher. In addition to extensive use of projection mapping, the lower tier of seating mechanically separates and relocates to the sides of the auditorium, creating a theater-in-theround experience surrounding a newly exposed body of water where water acrobatics and diving take place.

Adjacent to the Han Show theater sits Movie Park, also architecturally designed by Fisher, with the park concept devised by Forrec. Within this space are five attractions, with animation and visual effects provided by four of the world's leading visual effects firms. According to Doug Yellin, a producer on the project, "Walking into the conference room the first time was like walking into a Thea Awards meeting. All the big players were there."

Each of the attractions is unique unto itself and has its own theme. "Unlike Space Park Bremen, where everything had a central unifying theme," says Yellin, "Movie Park is more like Futurosocope. Shows can be changed out by switching out the software."

Movie Park will usher in specialty cinema presentations and technologies that will be novel to most of its guest community. The complex of theaters will offer 4D presentations, interactive cinema experiences, flight simulation and more on an impressive scale. In addition to Yellin's Mathilda Entertainment, other vendors on the project include Wincomm, Mousetrappe, Rhythm+Hues, and 7thSense Design.

A retail district is tied in to the ground floor of Movie Park. This strategy of combining various components into a single multifaceted destination can be found throughout Wanda's other cultural tourism destinations under construction. The company is currently developing full scale theme parks, waterparks, indoor ski resorts, and the world's largest aquarium, all of which will integrate with the next generation of Wanda Plaza. The strategy is simple: be everywhere, be high quality, and be Wanda. Through name recognition and high value, Wanda plans on being the name recognized with the out of home entertainment sector.

Which is why those 200 Wanda Kids Places are so important. Grab them young, get them acclimated to the brand, and keep them for life. It's a plan that's worked well for another entertainment company about to open its first park in mainland China. •••

Opposite, above:

The Han Show theater lights up the entire area. Inside, the lower level of seating parts and swivels to reveal a pool for water acrobatics and diving.

Opposite

Wanda opens the first Kids Place park in Dongguan



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Top: Shenfu Ring

The 515' foot tall Ring of Life monument at China's Shenfu New Town has put the city on the map, and brought the development a wave of international attention.

Bottom: Lotte World Drones

Goddard's new Let's Dream! show at Lotte World features the entertainment world's largest fleet of drones, and is credited with increasing the park's evening attendance by 35%.

Finding the "Big Idea"

InPark asks Gary Goddard about Chinese urbanization, Central America and how to get started in the industry

Explain to us what you see happening with China and reurbanization projects, some of which you have worked on. What role does themed entertainment play in those developments?

Whenever we're approached to help create a residential project, we look to contribute something bold and unique that will give it the chance to stand apart from the competition, and ultimately find success for our developer clients. We think the best example of that is Shenfu New Town, an entire new city we were involved in concept design for in 2009. Its 515' foot Ring of Life monument helped put the city in the news and on the map.

You've been known as a company that is often getting in early to new markets and iconic projects. Describe your role in developing these projects and how has that role changed over time?

Getting into a market early tends to have the best results when your clients have existing theme park experience. While it isn't a rule for use, we tend to lean that way, and it's made a world of difference. Groups like Haichang, KW Zone, and Hengdian Studios have been a dream to work with, because not only are they excellent seasoned operators, but more importantly, they understand certain realities of designing new parks and attractions.

How has the process of creating a design presentation changed over time?

Digital technology has certainly simplified the act of putting together the actual presentation, and we print it right here inhouse. As for our creative process, that has remained much the same over the years. We get everyone on our creative team involved and make sure all opinions are heard and considered, but that said, one of the reasons our projects have been so consistently successful is that we have a single person, whether it be me or one of my creative directors, driving the vision, just like a director on a film or piece of theater. Nothing great ever comes from consensus, there has to be someone with passion and vision that makes the final call on the key creative, vision, story and staging decisions.

How do you know what the right solution is for a client? Is it an intuition (and if so how do you share that with your other designers) or is there a process?

Each one of our projects begins with the search for the "big idea," and of course – as I have stated so many times in interviews and in speeches around the world -- that's finding the right idea, at the right time, at the right place, for the right market, for the right budget. To get there, our rule is to generally get beyond the more obvious "easy answer" which means it's either like something else already in existence and is therefore not unique. We usually throw out the first wave of ideas and push forward until we find something that stands out as different, or surprising, or unique. That's how we search for "the big idea" - engaging, emotional, immersive and surprising. Other times, we really are working without a net, so to speak. Total invention and redefining some part of the leisure or attraction universe. I love this process the most. It's a much more challenging process in many ways, but also much more rewarding in the end.

Mexico and Central America are increasingly becoming tourist destinations but themed entertainment seems slow to take root there. Why do you think that is, and do you see evidence of change?

Our team recently made an exploratory trip to South America to take the pulse of the region. What they found is a market ready to explode, but still timid to pull the trigger due to the famous struggles of Hopi Hari and other parks. In countries like Brazil, where there are 200 million consumers hungry for quality entertainment, it's only a matter of time before you see the development of world-class attractions, but we anticipate it'll be another five to seven years at least before that's going to happen. That being said, let's remember that Walt Disney created Disneyland when the industry experts said "amusement parks are dead..." Walt felt that the market was ready for a new kind of "amusement park" experience, and Disneyland proved that if you respected the audience, and if you gave them something with value, that consumers would react. I think with that huge market in Latin America, when the "Walt Disney" of that part of the world creates a quality park, great success will follow. As for Mexico, at the risk of sounding hyperbolic, we're working on a few projects that we believe will change the face of themed entertainment in the country and throughout the world. Hopefully we'll be able to reveal the details in the coming months.

Looking back on your career, what are some of the turning points?

Two things come to mind. First, getting started would have been almost impossible without the generosity of mentors like Al Bertino and Rolly Crump, who referred me to my first jobs with Six Flags and Universal, respectively.

The second is that nothing great happens without a strong advocate. The Forum Shops happened because of Henry Gluck, the Georgia Aquarium happened because of Bernie Marcus, our collaborations at Universal happened because of Jay Stein, and most recently, our eight attractions at Lotte World are a direct result of the support from the President of Lotte World, Dong-woo Lee. So, looking back, it's clear to me that all the great turning points and great advancements we've made over the years have been the result of visionary leaders within our client's organizations.

What advice do you have for those young creative individuals looking to start a career in the industry?

Find your passion. If it truly is themed entertainment, then do whatever you need to do to make it happen for yourself. Reach out to your idols, build relationships, set up meetings, hone your skills, and pound the pavement. Get experience and build your value any way you can, even if it involves working for little or no money. And inform yourself by seeing as much of life as you can. Don't copy existing theme park attractions – instead – find inspiration in theatre, movies, real-world destinations. Learn the foundations for what makes a theme park or attraction work, but then expand and create new ways to surprise and wow the audiences of today. The industry is in the midst of one of its greatest revolutions yet, and if you truly love this medium, now is the opportunity of a lifetime to be part of the future as it unfolds before you. To cite a famous Ray Bradbury quote, "don't talk about it, DO IT." • • •

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Curious about Everything

Meet Dennis Tanida, AIA, LEED AP BD+C, hospitality and themed entertainment architect and recent addition to VOA Associates L.A. office

Recently named VOA Associates Design Principal, Dennis Tanida brings nearly 35 years of experience in the design industry to the company's L.A. office, where he is poised to help the company expand its themed entertainment portfolio. InPark asked Dennis about his rich background and opportunities for the future.

You have an impressive portfolio in the attractions and entertainment industry. How will you be helping VOA grow and expand?

From Los Angeles, I will help lead and manage VOA's design pursuits on the west coast with a focus on culture, arts and entertainment projects. The L.A. office will continue to expand our reach in the themed entertainment market by establishing a presence closer to the headquarters of the major players in the industry.

What markets do you think are prime for growth in the architectural design sector?

Improvements in the U.S. economy have brought significant increases in hospitality, retail and entertainment projects. Asia, especially China, have an overwhelming interest and enthusiasm for RD&E destinations and theme

VOA Associates

Dennis Tanida, cos AIA, LEED AP BD+C fut



parks. As individuals, we seek environments designed for places to gather that promote a sense of community and belonging. We see a great deal of success in projects that deliver a sense of place.

What are some of the trends you are noticing as themed entertainment expands to a global stage?

New reservation technology will enhance the guest experience by reducing attraction wait times which will significantly alter the planning and design of theme parks. The theme park's queues, food, and merchandise venue layout will change as less waiting in lines occurs, and guests will be seeking and expecting to fill their time with more engaging things to do.

What advice do you have to people looking for a design career in themed entertainment design?

Be curious about everything. I imagine most people in the themed entertainment design world did not follow a prescriptive path to get to where they are today. Be knowledgeable about the themed entertainment business, dabble in everything, and seek to meet and learn from a diverse group of people in the industry. Be willing to take risks. The most amazing opportunities arrive when you least expect it. That's been my experience.

How important is building green to developers around the world?

Sustainable design is essential for each project whether the client's scope requires it or not. Designing our entertainment venues intelligently and sustainably saves developers money by reducing ongoing operational costs. Whether the features are explicit or implicit, our future entertainment venues can certainly be a showcase for great imaginative sustainable design.

What are your favorite examples of architectural design that has helped push boundaries and advanced the industry?

In themed entertainment design, there are two aspects of architectural design – iconic structures and place-making venues. As a child growing up in Southern California, Sleeping Beauty Castle at Disneyland was an iconic design that evoked fantasy, magic and wonder. Little did I know that in my career, I would be the design architect for the Fortress at Tokyo DisneySea, which is the castle icon for that Park. Spaceship Earth at Epcot is another iconic structure that provides the imagery and setting for the Epcot experience. Not only is it the symbol for Epcot, it also contains an incredible attraction inside the sphere. These kinds of buildings have contributed to the indelible iconography of themed entertainment architecture.

As for place-making venues, the first totally immersive environment was New Orleans Square at Disneyland. It was not a duplication of the real French Quarter, it created a romanticized version that evoked the French Quarter with an

incredible Pirates attraction, authentic shops and themed food. It created a fully dimensional experience for guests of sight, sound, touch, taste and smell.

Why did you decide to join VOA?

The opportunity to do great work in a collaborative manner was the key reason to join VOA. They have an incredibly talented group of individuals who are passionate about entertainment projects. The client list is top notch and I hope to continue developing those magical worlds our guests want to inhabit. •••

VOA Associates

VOA Associates Incorporated, founded in 1969, is an international planning, architecture, interior design, and landscape architecture firm with offices located throughout the U.S., China, Colombia, and Brazil. VOA has extensive experience designing theme park attractions and entertainment venues world-wide, and has been a supporter and member of the Themed Entertainment Association (TEA) for the past seven years. Dennis Tanida, AIA, LEED AP BD+C can be reached at dtanida@voa.com.



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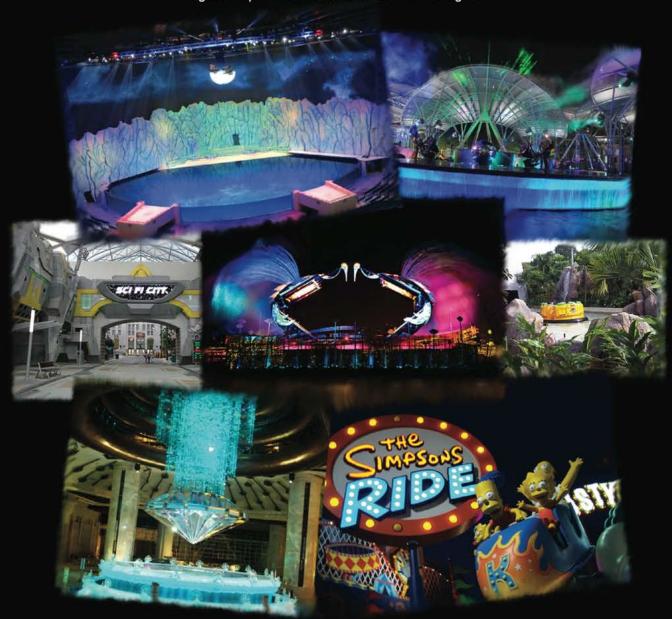
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